Hit List

Clear | Generate Collection | Print | Fwd Refs | Bkwd Refs | Generate OACS

Search Results - Record(s) 1 through 28 of 28 returned.

☐ 1. Document ID: US 6715145 B1

L7: Entry 1 of 28 File: USPT Mar 30, 2004

US-PAT-NO: 6715145
DOCUMENT-IDENTIFIER: US 6715145 B1

TITLE: Processing pipeline in a base services pattern environment

DATE-ISSUED: March 30, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bowman-Amuah; Michel K.	Colorado Springs	CO		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Accenture LLP	Palo Alto	CA			02

APPL-NO: 09/ 386431 [PALM]
DATE FILED: August 31, 1999

INT-CL: [07] G06 F 9/00

US-CL-ISSUED: 718/101; 718/100, 718/223, 718/316
US-CL-CURRENT: 718/101; 718/100, 719/316

FIELD-OF-SEARCH: 709/100, 709/101, 709/223, 709/316

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
5047918	September 1991	Schwartz et al.	707/203
5133075	July 1992	Risch	707/201
5187787	February 1993	Skeen et al.	709/314
5241580	August 1993	Babson, III	379/15
5291593	March 1994	Abraham et al.	707/103
5301270	April 1994	Steinberg et al.	345/326
5301320	April 1994	McAttee et al.	395/650

5313636	May 1994	Noble et al.	707/1
5327559	July 1994	Priven et al.	709/101
5410703	April 1995	Nilsson et al.	717/168
5414812	May 1995	Filip et al.	707/103
5434978	July 1995	Dockter et al.	709/230
5437038	July 1995	Silberbauer et al.	395/700
5457797	October 1995	Butterworth et al.	709/302
5463686	October 1995	Lebourges	379/220
5471629	November 1995	Risch	707/201
5475844	December 1995	Shiramizu et al.	709/104
5499371	March 1996	Henninger et al.	717/2
5560005	September 1996	Hoover et al.	707/10
5568644	October 1996	Nelson et al.	395/741
5581758	December 1996	Burnett et al.	707/103
5606664	February 1997	Brown et al.	709/224
5623418	April 1997	Rostoker et al.	716/1
5642511	June 1997	Chow et al.	395/701
5649139	July 1997	Weinreb et al.	707/202
5671386	September 1997	Blair et al.	395/405
5675748	October 1997	Ross	395/284
5677997	October 1997	Talatik	706/45
5680602	October 1997	Bloem et al.	707/1
5692107	November 1997	Simoudis et al.	706/12
5706506	January 1998	Jensen et al.	707/103
5708828	January 1998	Coleman	395/785
5710901	January 1998	Stodghill et al.	345/339
5715397	February 1998	Ogawa et al.	395/200.18
5721908	February 1998	Lagarde et al.	
5724575	March 1998	Hoover et al.	707/10
5732263	March 1998	Havens et al.	707/103
5732270	March 1998	Foody et al.	709/303
5737607	April 1998	Hamilton et al.	395/701
5751965	May 1998	Mayo et al.	709/224
5758351	May 1998	Gibson et al.	707/104
5761513	June 1998	Yellin et al.	395/705
5764235	June 1998	Hunt et al.	345/428
5764955	June 1998	Doolan	709/223
5774660	June 1998	Brendel et al.	709/201
5778368	July 1998	Hogan et al.	707/10
5787413	July 1998	Kauffman et al.	707/2
5799310	August 1998	Anderson et al.	707/102
5826104	October 1998	Rifkin	710/15
5867153	February 1999	Grandcolas et al.	345/326
5870742	February 1999	Chang et al.	707/8
5870746	February 1999	Knutson et al.	707/101
5872973	February 1999	Mitchell et al.	709/332
5873049	February 1999	Bielak et al.	702/6

5873086	February 1999	Fujii et al.	707/10
5878408	March 1999	Van Huben et al.	707/1
5890133	March 1999	Ernst	705/7
5892909	April 1999	Grasso et al.	709/201
5896383	April 1999	Wakeland	370/400
5898870	April 1999	Okuda et al.	709/104
5905873	May 1999	Hartmann et al.	395/200.79
5905897	May 1999	Chou et al.	395/733
5907704	May 1999	Gudmundson et al.	395/701
5909540	June 1999	Carter et al.	714/4
5915115	June 1999	Talati	717/5
5920703	July 1999	Campbell et al.	395/200.66
5933816	August 1999	Zeannah et al.	705/35
5940075	August 1999	Mutschler, III et al.	345/335
5940594	August 1999	Ali et al.	709/203
5946694	August 1999	Copeland et al.	707/103
5946697	August 1999	Shen	707/104
5953707	September 1999	Huang et al.	705/10
5958012	September 1999	Battat et al.	709/224
5960200	September 1999	Eager et al.	717/5
5966451	October 1999	Utsumi	380/49
5987247	November 1999	Lau	717/2
5987501	November 1999	Hamilton et al.	709/203
5987514	November 1999	Rangarajan	709/224
5987633	November 1999	Newman et al.	717/712
5995753	November 1999	Walker	717/2
5995945	November 1999	Notani et al.	705/28
5999948	December 1999	Nelson et al.	
6006230	December 1999	Ludwig et al.	707/10
6016394	January 2000	Walker	717/1
6018743	January 2000	Xu	707/103R
6023722	February 2000	Colyer	709/201
6029174	February 2000	Sprenger et al.	707/103
6029177	February 2000	Sadiq et al.	707/201
6032153	February 2000	Sadiq et al.	707/103
6035303	March 2000	Baer et al.	707/103
6038598	March 2000	Danneels	709/219
6041365	March 2000	Kleinerman	709/302
6052739	April 2000	Bopardikar et al.	709/301
6057856	May 2000	Miyashita et al.	345/435
6070191	May 2000	Narendran et al.	709/226
6078960	June 2000	Ballard	709/229
6081837	June 2000	Stedman et al.	709/219
6083276	July 2000	Davidson et al.	717/1
6085198	July 2000	Skinner et al.	707/103
6092118	July 2000	Tsang	709/246
6108703	August 2000	Leighton et al.	709/226

6115752	September 2000	Chauhan	709/241
6125359	September 2000	Lautzenheiser et al.	706/60
6128279	October 2000	O'Neil et al.	370/229
6141660	October 2000	Bach et al.	345/352
6141759	October 2000	Braddy	713/201
6144991	November 2000	England	709/205
6148335	November 2000	Haggard et al.	709/224
6148361	November 2000	Carpenter et al.	710/260
6154212	November 2000	Eick et al.	345/356
6157940	December 2000	Marullo et al.	709/22
6182182	January 2001	Bradley et al.	710/129
6202099	March 2001	Gillies et al.	709/317
6223209	April 2001	Watson	709/201
6243761	June 2001	Mogul et al.	709/246
6473794	October 2002	Guheen et al.	709/223
6557061	April 2003	Hindie et al.	710/72

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
0123456	January 2000	EP	100/100
WO92/01251	January 1992	WO	
WO 99/08208	February 1999	WO	
WO 99/44155	September 1999	WO	
PCT/US00/23885	August 2000	WO	
PCT/US00/23999	August 2000	WO	
PCT/US00/24082	August 2000	WO	
PCT/US00/24083	August 2000	WO	
PCT/US00/24084	August 2000	WO	
PCT/US00/24085	August 2000	WO	
PCT/US00/24086	August 2000	WO	
PCT/US00/24125	August 2000	WO	
PCT/US/00/24188	August 2000	WO	
PCT/US00/24189	August 2000	WO	
PCT/US00/24236	August 2000	WO	

OTHER PUBLICATIONS

Kovalerchuck et al., comparison of relational methods and attribute-based methods for data mining in intelligent systems, proceedings of the 1999 IEEE, International Symposium on Intelligent Systems and Semiotics, Cambridge, MA, PP 162-166. Date Sep. 1999.

Kinexis. Object-orientation and Transaction Processing Where Do They Meet. OOPSLA Keynote, Oct. 6-11, 1991.

Lee et al. Path Dictionary: A New Access Method for Query Processing in Object-oriented Databases. IEEE Transactions on Knowledge and Data Engineering, v10, n3, May/Jun. 1998.

Buddrus et al. Enacting Authorization Models for Object-oriented Databases. Database and Expert Systems applications, Proceedings, Seventh International

Workshop, Sep. 9-10, 1996, pp. 116-121.
Bertino et al. Trigger Inheritance and Overriding in an Active Object Database System. IEEE Transactions on Knowledge and Data Engineering, v12, n4. Jul./Aug. 2000.
ANSII Standard for the Programming Language C+ +, First Edition ISO/IEC 14882: 1998. Date Sep. 1998.
The Annotated C+ + Reference Manual ANSII Base Document, M. A. Ellis and B. Stroustrup. Date Jul. 1990.
IBM Dictionary of Computing, pp. 140, 241, 299, 728.
Microsoft Corporation, Microsoft Solutions Framework Overview A Quick Tour of the MSF Models, URL:http://channels.microsoft.com/enterprise/support/support/consult, Viewed Oct. 9, 1999.

ART-UNIT: 2155

PRIMARY-EXAMINER: Banankhah; Majid A.

ASSISTANT-EXAMINER: Vo; Lilian

ATTY-AGENT-FIRM: Oppenheimer Wolff & Donnelly LLP

ABSTRACT:

A system and method, are provided for structuring batch activities for simplified reconfiguration. A series of processing steps is prepared for performing on input objects being streamed into a batch processing system. Each of the processing steps is encapsulated within at least one of a plurality of filters. The input objects are received and processed in the filters. Results are delivered from the filters incrementally during the processing of the input objects for reducing latency and enabling parallel processing. Connectors are utilized for connecting at least two of the plurality of filters each having a processing step for creating a process. One of the two filters is an input filter of the process and the other of the two filters is an output filter of the process. Connectors are also used for connecting input and output filters of different processes for forming a scalable system.

18 Claims, 195 Drawing figures

☐ 2. Document ID: US 6640249 B1

L7: Entry 2 of 28 File: USPT Oct 28, 2003

US-PAT-NO: 6640249
DOCUMENT-IDENTIFIER: US 6640249 B1

TITLE: Presentation services patterns in a netcentric environment

DATE-ISSUED: October 28, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bowman-Amuah; Michel K.	Colorado Springs	CO		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Accenture LLP	Palo Alto	CA			02

APPL-NO: 09/ 387072 [PALM]
DATE FILED: August 31, 1999

PARENT-CASE:
CROSS REFERENCE TO RELATED APPLICATIONS This application is related to U.S. patent applications Ser. Nos. 09/387,747 and 09/387,318 entitled A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR A DEVELOPMENT ARCHITECTURE FRAMEWORK and A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR MAINTENANCE AND ADMINISTRATION IN AN E-COMMERCE APPLICATION FRAMEWORK, both of which are filed concurrently herewith and which are incorporated by reference in their entirety.

INT-CL: [07] G06 F 15/16, G06 F 9/44

US-CL-ISSUED: 709/228; 709/315
US-CL-CURRENT: 709/228; 719/315

FIELD-OF-SEARCH: 709/219, 709/203, 709/227, 709/237, 709/201, 709/228, 709/315, 345/717, 345/797

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
5047918	September 1991	Schwartz et al.	707/203
5133075	July 1992	Risch	707/201
5187787	February 1993	Skeen et al.	709/314
5241580	August 1993	Babson, III	379/15
5291593	March 1994	Abraham et al.	707/103
5301270	April 1994	Steinberg et al.	345/326
5301320	April 1994	McAttee et al.	395/650
5313636	May 1994	Noble et al.	707/1
5414812	May 1995	Filip et al.	707/103
5434978	July 1995	Dockter et al.	709/230
5437038	July 1995	Silberbauer et al.	395/700
5457797	October 1995	Butterworth et al.	709/302
5463686	October 1995	Lebourges	379/220
5471629	November 1995	Risch	707/201
5475844	December 1995	Shiramizu et al.	709/104
5499371	March 1996	Henninger et al.	717/2
5560005	September 1996	Hoover et al.	707/10
5568644	October 1996	Nelson et al.	395/741
5581758	December 1996	Burnett et al.	707/103
5606664	February 1997	Brown et al.	709/224
5623418	April 1997	Rostoker et al.	716/1
5642511	June 1997	Chow et al.	395/701
5649139	July 1997	Weinreb et al.	707/202

5671386	September 1997	Blair et al.	395/405
5675748	October 1997	Ross	395/284
5677997	October 1997	Talatik	706/45
5680602	October 1997	Bloem et al.	707/1
5692107	November 1997	Simoudis et al.	706/12
5706506	January 1998	Jensen et al.	707/103
5708828	January 1998	Coleman	395/785
5710901	January 1998	Stodghill et al.	345/339
5715397	February 1998	Ogawa et al.	395/200.18
5721908	February 1998	Lagarde et al.	395/610
5724575	March 1998	Hoover et al.	707/10
5732263	March 1998	Havens et al.	707/103
5732270	March 1998	Foody et al.	709/303
5737607	April 1998	Hamilton et al.	395/701
5751965	May 1998	Mayo et al.	709/224
5758351	May 1998	Gibson	707/104
5761513	June 1998	Yellin et al.	395/705
5764235	June 1998	Hunt et al.	345/428
5764955	June 1998	Doolan	709/223
5768510	June 1998	Gish	395/200.33
5774660	June 1998	Brendel et al.	709/201
5778368	July 1998	Hogan et al.	707/10
5787413	July 1998	Kauffman et al.	707/2
5799310	August 1998	Anderson et al.	707/102
5867153	February 1999	Grandcolas et al.	345/326
5870742	February 1999	Chang et al.	707/8
5870746	February 1999	Knutson et al.	707/101
5872973	February 1999	Mitchell et al.	709/332
5873086	February 1999	Fujii et al.	707/10
5878408	March 1999	Van Huben et al.	707/1
5890133	March 1999	Ernst	705/7
5892909	April 1999	Grasso et al.	709/201
5896383	April 1999	Wakeland	370/400
5898870	April 1999	Okuda et al.	709/104
5905873	May 1999	Hartmann et al.	395/200.79
5905897	May 1999	Chan et al.	395/733
5907704	May 1999	Gudmundson et al.	395/701
5909540	June 1999	Carter et al.	714/4
5915115	June 1999	Talati	717/5
5920703	July 1999	Campbell et al.	395/200.66
5923736	July 1999	Shachar	379/93.17
5933816	August 1999	Zeannah et al.	705/35
5940075	August 1999	Mutschler, III et al.	345/335
5940594	August 1999	Ali et al.	709/203
5946694	August 1999	Copeland et al.	707/103
5946697	August 1999	Shen	707/104
5953707	September 1999	Huang et al.	705/10

5958012	September 1999	Battat et al.	709/224
5960200	September 1999	Eager et al.	717/5
5966451	October 1999	Utsumi	380/49
5987247	November 1999	Lau	717/2
5987501	November 1999	Hamilton et al.	709/203
5987514	November 1999	Rangarajan	709/224
5987633	November 1999	Newman et al.	714/712
5995753	November 1999	Walker	717/2
5995945	November 1999	Notani et al.	705/28
5999948	December 1999	Nelson	
6006230	December 1999	Ludwig et al.	707/10
6016394	January 2000	Walker	717/1
6018743	January 2000	Xu	707/103R
6023722	February 2000	Colyer	709/201
6029174	February 2000	Sprenger et al.	707/103
6029177	February 2000	Sadiq et al.	707/201
6032153	February 2000	Sadiq et al.	707/103
6035303	March 2000	Baer et al.	707/103
6038598	March 2000	Danneels	709/219
6041365	March 2000	Kleinerman	709/302
6052711	April 2000	Gish	709/203
6052739	April 2000	Bopardikar et al.	709/301
6057856	May 2000	Miyashita et al.	345/435
6070191	May 2000	Narendran et al.	709/226
6078960	June 2000	Ballard	709/229
6081837	June 2000	Stedman et al.	709/219
6083276	July 2000	Davidson et al.	717/1
6085198	July 2000	Skinner et al.	707/103
6092118	July 2000	Tsang	709/246
6108703	August 2000	Leighton et al.	709/226
6115752	September 2000	Chauhan	709/241
6125359	September 2000	Lautzenheiser et al.	706/60
6128279	October 2000	O'Neil et al.	370/229
6141660	October 2000	Bach et al.	345/352
6141759	October 2000	Braddy	713/201
6144991	November 2000	England	709/205
6148335	November 2000	Haggard et al.	709/224
6148361	November 2000	Carpenter et al.	710/260
6154212	November 2000	Eick et al.	345/356
6157940	December 2000	Marullo et al.	709/22
6182182	January 2001	Bradley et al.	710/129
6202099	March 2001	Gillies et al.	709/317
6223209	April 2001	Watson	709/201
6243761	June 2001	Mogul et al.	709/246
6272556	August 2001	Gish	709/315
6304893	October 2001	Gish	709/203

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
0123456	January 2000	EP	100/100
WO92/01251	January 1992	WO	
WO 99/08208	February 1999	WO	
WO 99/44155	September 1999	WO	

OTHER PUBLICATIONS

Microsoft Corporation, Microsoft Solutions Framework Overview A Quick Tour of the MSF Models, URL: http://channels.microsoft.com/enterprise/support/support/consult, Viewed Oct. 9, 1999.
Kovalerchuck et al., comparison of relational methods and attribute-based methods for data mining in intelligent systems, proceedings of the 1999 IEEE, International Symposium on Intelligent Systems and Semiotics, Cambridge, MA, PP 162-166. Date Sep. 1999.
Kinexis. Object-orientation and Transaction Processing Where Do They Meet. OOPSLA Keynote, Oct. 6-11, 1991.
Lee et al. Path Dictionary: A New Access Method for Query Processing in Object-oriented, Databases. IEEE Transactions on Knowledge and Data Engineering, v10, n3, May/Jun. 1998.
Buddrus et al. Enacting Authorization Models for Oject-oriented Databases. Database and Expert Systems applications, Proceedings, Seventh International Workshop, Sep. 9-10, 1996, pp. 116-121.
Bertino et al. Trigger Inheritance and Overriding in an Active Object Database System. IEEE Transactions on Knowledge and Data Engineering, v12, n4. Jul./Aug., 2000.
ANSII Standard for the Programming Language C++, First Edition ISO/IEC 14882: 1998. Date Sep. 1998.
The Annotated C++ Reference Manual ANSII Base Document, M.A. Ellis and B. Stroustrup. Date Jul. 1990.
IBM Dictionary of Computing, pp. 140, 241, 299, 728.
Microsoft Corporation, Microsoft Solutions Framework Overview A Quick Tour of the MSF Models, URL: http://channels.microsoft.com/enterprise/support/support/consult, Viewed Oct. 9, 1999.

ART-UNIT: 2757

PRIMARY-EXAMINER: Lim; Krisna

ASSISTANT-EXAMINER: Kupstas; Tod

ATTY-AGENT-FIRM: Oppenheimer Wolff & Donnelly LLP

ABSTRACT:

A system, method and article of manufacture are provided for implementing presentation services patterns. Non-presentation logic executed on a client is assigned to an activity for allowing reuse of the non-presentation logic across multiple, volatile user interfaces. A view is assigned to the activity. Validation rules are also structured for validating user data across the multiple user interfaces.

15 Claims, 195 Drawing figures

☐ 3. Document ID: US 6640244 B1

L7: Entry 3 of 28 File: USPT Oct 28, 2003

US-PAT-NO: 6640244
DOCUMENT-IDENTIFIER: US 6640244 B1

TITLE: Request batcher in a transaction services patterns environment

DATE-ISSUED: October 28, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bowman-Amuah; Michel K.	Colorado Springs	CO		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Accenture LLP	Palo Alto	CA			02

APPL-NO: 09/ 387575 [PALM]
DATE FILED: August 31, 1999

PARENT-CASE:
CROSS REFERENCE TO RELATED APPLICATIONS This application is related to United States Patent Applications entitled A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR A DEVELOPMENT ARCHITECTURE FRAMEWORK, Ser. No. 09/387,747, and A SYSTEM METHOD AND ARTICLE OF MANUFACTURE FOR MAINTENANCE AND ADMINISTRATION IN AN E-COMMERCE APPLICATION FRAMEWORK, Ser. No. 09/387,318, both of which are filed concurrently herewith and which are incorporated by reference in their entirety.

INT-CL: [07] G06 F 13/00

US-CL-ISSUED: 709/207; 709/101, 709/313, 707/10
US-CL-CURRENT: 709/207; 707/10, 718/101

FIELD-OF-SEARCH: 709/101, 709/203, 709/204, 709/207, 709/219, 709/313, 709/329, 709/218, 707/10

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
5047918	September 1991	Schwartz et al.	707/203
5133075	July 1992	Risch	707/201
5187787	February 1993	Skeen et al.	709/314
5241580	August 1993	Babson, III	379/15
5291593	March 1994	Abraham et al.	707/103
5301270	April 1994	Steinberg et al.	345/326

5301320	April 1994	McAtee et al.	395/650
5313636	May 1994	Noble et al.	707/1
5414812	May 1995	Filip et al.	707/103
5434978	July 1995	Dockter et al.	709/230
5437038	July 1995	Silberbauer et al.	395/700
5457797	October 1995	Butterworth et al.	709/302
5463686	October 1995	Lebourges	379/220
5471629	November 1995	Risch	707/201
5475844	December 1995	Shiramizu et al.	709/104
5499371	March 1996	Henninger et al.	717/2
5560005	September 1996	Hoover et al.	707/10
5568644	October 1996	Nelson et al.	395/741
5581758	December 1996	Burnett et al.	707/103
5606664	February 1997	Brown et al.	709/224
5623418	April 1997	Rostoker et al.	716/1
5642511	June 1997	Chow et al.	395/701
5649139	July 1997	Weinreb et al.	707/202
5671386	September 1997	Blair et al.	395/405
5675748	October 1997	Ross	395/284
5677997	October 1997	Talatik	706/45
5680602	October 1997	Bloem et al.	707/1
5692107	November 1997	Simoudis et al.	706/12
5706506	January 1998	Jensen et al.	707/103
5708828	January 1998	Coleman	395/785
5710901	January 1998	Stodghill et al.	345/339
5715397	February 1998	Ogawa et al.	395/200.18
5721908	February 1998	Lagarde et al.	395/610
5724575	March 1998	Hoover et al.	707/10
5732263	March 1998	Havens et al.	707/103
5732270	March 1998	Foody et al.	709/303
5737607	April 1998	Hamilton et al.	395/701
5751965	May 1998	Mayo et al.	709/224
5758351	May 1998	Gibson	707/104
5761513	June 1998	Yellin et al.	395/705
5764235	June 1998	Hunt et al.	345/428
5764955	June 1998	Doolan	709/223
5774660	June 1998	Brendel et al.	709/201
5778368	July 1998	Hogan et al.	707/10
5787413	July 1998	Kauffman et al.	707/2
5799310	August 1998	Anderson et al.	707/102
5822523	October 1998	Rothschild et al.	709/236
5867153	February 1999	Grandcolas et al.	345/326
5870742	February 1999	Chang et al.	707/8
5870746	February 1999	Knutson et al.	707/101
5872973	February 1999	Mitchell et al.	709/332
5873086	February 1999	Fujii et al.	707/10
5878408	March 1999	Van Huben et al.	707/1

5890133	March 1999	Ernst	705/7
5892909	April 1999	Grasso et al.	709/201
5896383	April 1999	Wakeland	370/400
5898870	April 1999	Okuda et al.	709/104
5905873	May 1999	Hartmann et al.	395/200.79
5905897	May 1999	Chou et al.	395/733
5907704	May 1999	Gudmundson et al.	395/701
5909540	June 1999	Carter et al.	714/4
5915115	June 1999	Talati	717/5
5920703	July 1999	Campbell et al.	395/200.06
5933816	August 1999	Zeanah et al.	705/35
5940075	August 1999	Mutschler, III et al.	345/335
5940594	August 1999	Ali et al.	709/203
5946694	August 1999	Copeland et al.	707/103
5946697	August 1999	Shen	707/104
5953707	September 1999	Huang et al.	705/10
5958012	September 1999	Battat et al.	709/224
5960200	September 1999	Eager et al.	717/5
5966451	October 1999	Utsumi	380/49
5987247	November 1999	Lau	717/2
5987501	November 1999	Hamilton et al.	709/203
5987514	November 1999	Rangarajan	709/224
5987633	November 1999	Newman et al.	714/712
5995753	November 1999	Walker	717/2
5995945	November 1999	Notani et al.	705/28
5999948	December 1999	Nelson	
6006230	December 1999	Ludwig et al.	707/10
6016394	January 2000	Walker	717/1
6018743	January 2000	Xu	707/103R
6023722	February 2000	Colyer	709/201
6029174	February 2000	Sprenger et al.	707/103
6029177	February 2000	Sadiq et al.	707/201
6032153	February 2000	Sadiq et al.	707/103
6035303	March 2000	Baer et al.	707/103
6038598	March 2000	Danneels	709/219
6041365	March 2000	Kleinerman	709/302
6052739	April 2000	Bopardikar et al.	709/301
6057856	May 2000	Miyashita et al.	345/435
6070191	May 2000	Narendran et al.	709/226
6078960	June 2000	Ballard	709/229
6081837	June 2000	Stedman et al.	709/219
6083276	July 2000	Davidson et al.	717/1
6085198	July 2000	Skinner et al.	707/103
6092118	July 2000	Tsang	709/246
6108703	August 2000	Leighton et al.	709/226
6115752	September 2000	Chauhan	709/241
6125359	September 2000	Lautzenheiser et al.	706/60

6128279	October 2000	O'Neil et al.	370/229
6141660	October 2000	Bach et al.	345/352
6141759	October 2000	Braddy	713/201
6144991	November 2000	England	709/205
6148335	November 2000	Haggard et al.	709/224
6148361	November 2000	Carpenter et al.	710/260
6154212	November 2000	Eick et al.	345/356
6157940	December 2000	Marullo et al.	709/22
6182182	January 2001	Bradley et al.	710/129
6202099	March 2001	Gillies et al.	709/317
6223209	April 2001	Watson	709/201
6243761	June 2001	Mogul et al.	709/246
6339794	January 2002	Bolosky et al.	709/233

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
0123456	January 2000	EP	100/100
WO 92/01251	January 1992	WO	
WO 99/08208	February 1999	WO	
WO 99/44155	September 1999	WO	
PCT/US00/23885	August 2000	WO	
PCT/US00/23999	August 2000	WO	
PCT/US00/24082	August 2000	WO	
PCT/US00/24083	August 2000	WO	
PCT/US00/24084	August 2000	WO	
PCT/US00/24085	August 2000	WO	
PCT/US00/24086	August 2000	WO	
PCT/US00/24125	August 2000	WO	
PCT/US00/24188	August 2000	WO	
PCT/US00/24189	August 2000	WO	
PCT/US00/24236	August 2000	WO	

OTHER PUBLICATIONS

Microsoft Corporation, Microsoft Solutions Framework Overview A Quick Tour of the MSF Models, URL: http://channels.microsoft.com/enterprise/support/support/consult, Viewed Oct. 9, 1999.
Kovalerchuck et al., 'comparison of relational methods and attribute-based methods for data mining in intelligent systems, proceedings of the 1999 IEEE, International Symposium on Intelligent Systems and Semiotics, Cambridge, MA, PP 162-166. Date Sep. 1999.
Kinexis. Object-orientation and Transaction Processing Where Do They Meet. OOPSLA Keynote, Oct. 6-11, 1991.
Lee et al. Path Dictionary: A New Access Method for Query Processing in Object-oriented Databases. IEEE Transactions on Knowledge and Data Engineering, v10, n3, May/Jun. 1998.
Buddrus et al. Enacting Authorization Models for Object-oriented Databases. Database and Expert Systems applications, Proceedings, Seventh International Workshop, Sep. 9-10, 1996, pp. 116-121.

Bertino et al. Trigger Inheritance and Overriding in an Active Object Database System. IEEE Transactions on Knowledge and Data Engineering, v12, n4. Jul./Aug., 2000.
ANSII Standard for the Programming Language C.sup.+-30 , First Edition ISO/IEC 14882: 1998. Date Sep. 1998.
The Annotated C.sup.++ Reference Manual ANSII Base Document, M.A. Ellis and B. Stroustrup. Date Jul. 1990.
IBM Dictionary of Computing, pp. 140, 241, 299, 728, Undated.
Microsoft Corporation, Microsoft Solutions Framework Overview A Quick Tour of the MSF Models, URL: http://channels.microsoft.com/enterprise/support/support/consult, Viewed Oct. 9, 1999.

ART-UNIT: 2154

PRIMARY-EXAMINER: Vu; Viet D.

ATTY-AGENT-FIRM: Oppenheimer Wolff & Donnelly LLP

ABSTRACT:

A system and method are provided for batching logical requests for reducing network traffic. A group of business objects necessary for a transaction are provided and managed in a logical unit of work. Logically-related requests received from the logical unit of work are grouped into a first single network message, and update and retrieval transactions are grouped into a second single network message. The first and second messages are stored, and the first message is sent upon receiving an order to send the first message and the second message is sent upon receiving an order to send the second message.

15 Claims, 195 Drawing figures

☐ 4. Document ID: US 6640238 B1

L7: Entry 4 of 28 File: USPT Oct 28, 2003

US-PAT-NO: 6640238
DOCUMENT-IDENTIFIER: US 6640238 B1
**** See image for Certificate of Correction ****

TITLE: Activity component in a presentation services patterns environment

DATE-ISSUED: October 28, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bowman-Amuah; Michael K.	Colorado Springs	CO		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Accenture LLP	Palo Alto	CA			02

APPL-NO: 09/ 387069 [PALM]

DATE FILED: August 31, 1999

PARENT-CASE:
CROSS REFERENCE TO RELATED APPLICATIONS This application is related to United States Patent Applications entitled A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR A DEVELOPMENT ARCHITECTURE FRAMEWORK U.S. Ser. No. 09/387,747; and A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR MAINTENANCE AND ADMINISTRATION IN AN E-COMMERCE APPLICATION FRAMEWORK U.S. Ser. No. 09/387,318, both of which are filed concurrently herewith and which are incorporated by reference in their entirety.

INT-CL: [07] G06 F 15/16

US-CL-ISSUED: 709/201; 709/203, 709/223, 709/224
US-CL-CURRENT: 709/201; 709/203, 709/223, 709/224

FIELD-OF-SEARCH: 709/250, 709/223, 709/224, 707/103, 707/2, 707/3, 707/10, 700/203, 700/201, 700/223, 700/224

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
5047918	September 1991	Schwartz et al.	707/203
5133075	July 1992	Risch	707/201
5187787	February 1993	Skeen et al.	709/314
5241580	August 1993	Babson, III	379/15
5291593	March 1994	Abraham et al.	707/103
5301270	April 1994	Steinberg et al.	345/326
5301320	April 1994	McAttee et al.	395/650
5313636	May 1994	Noble et al.	707/1
5414812	May 1995	Filip et al.	707/103
5434978	July 1995	Dockter et al.	709/230
5437038	July 1995	Silberbauer et al.	395/700
5457797	October 1995	Butterworth et al.	709/302
5463686	October 1995	Lebourges	379/220
5471629	November 1995	Risch	707/201
5475844	December 1995	Shiramizu et al.	709/104
5499371	March 1996	Henninger et al.	717/2
5560005	September 1996	Hoover et al.	707/10
5568644	October 1996	Nelson et al.	395/741
5581758	December 1996	Burnett et al.	707/103
5606664	February 1997	Brown et al.	709/224
5623418	April 1997	Rostoker et al.	716/1
5642511	June 1997	Chow et al.	395/701
5649139	July 1997	Weinreb et al.	707/202
5671386	September 1997	Blair et al.	395/405
5675748	October 1997	Ross	395/284
5677997	October 1997	Talatik	706/45
5680602	October 1997	Bloem et al.	707/1

5692107	November 1997	Simoudis et al.	706/12
5706506	January 1998	Jensen et al.	707/103
5708828	January 1998	Coleman	395/785
5710901	January 1998	Srodghill et al.	345/339
5715397	February 1998	Ogawa et al.	395/200.18
5721908	February 1998	Lagarde et al.	
5724575	March 1998	Hoover et al.	707/10
5732263	March 1998	Havens et al.	707/103
5732270	March 1998	Foody et al.	709/303
5737607	April 1998	Hamilton et al.	395/701
5751965	May 1998	Mayo et al.	709/224
5758351	May 1998	Gibson	707/104
5761513	June 1998	Yellin et al.	395/705
5764235	June 1998	Hunt et al.	345/428
5764955	June 1998	Doolan	709/223
5774660	June 1998	Brendel et al.	709/201
5778368	July 1998	Hogan et al.	707/10
5787413	July 1998	Kauffman et al.	707/2
5799310	August 1998	Anderson et al.	707/102
5867153	February 1999	Grandcolas et al.	345/326
5870742	February 1999	Chang et al.	707/8
5870746	February 1999	Knutson et al.	707/101
5872973	February 1999	Mitchell et al.	709/332
5873086	February 1999	Fujii et al.	707/10
5878408	March 1999	Van Huben et al.	707/1
5890133	March 1999	Ernst	705/7
5892909	April 1999	Grasso et al.	709/201
5896383	April 1999	Wakeland	370/400
5898870	April 1999	Okuda et al.	709/104
5905873	May 1999	Hartmann et al.	395/200.79
5905897	May 1999	Chou et al.	395/733
5907704	May 1999	Gudmundson et al.	395/701
5909540	June 1999	Carter et al.	714/4
5915115	June 1999	Talati	717/5
5920703	July 1999	Campbell et al.	395/200.66
5933816	August 1999	Zeannah et al.	705/35
5940075	August 1999	Mutschler, III et al.	345/335
5940594	August 1999	Ali et al.	709/203
5946694	August 1999	Copeland et al.	707/103
5946697	August 1999	Shen	707/104
5953707	September 1999	Huang et al.	705/10
5958012	September 1999	Battat et al.	709/224
5960200	September 1999	Eager et al.	717/5
5966451	October 1999	Utsumi	380/49
5987247	November 1999	Lau	717/2
5987501	November 1999	Hamilton et al.	709/203
5987514	November 1999	Rangarajan	709/224

5987633	November 1999	Newman et al.	714/712
5995753	November 1999	Walker	717/2
5995945	November 1999	Notani et al.	705/28
5999948	December 1999	Nelson	
6006230	December 1999	Ludwig et al.	707/10
6023722	February 2000	Colyer	709/201
6029174	February 2000	Sprenger et al.	707/103
6029177	February 2000	Sadiq et al.	707/201
6032153	February 2000	Sadiq et al.	707/103
6035303	March 2000	Baer et al.	707/103
6038598	March 2000	Danneels	709/219
6041365	March 2000	Kleinerman	709/302
6052739	April 2000	Bopardikar et al.	709/301
6057856	May 2000	Miyashita et al.	345/435
6070191	May 2000	Narendran et al.	709/226
6078960	June 2000	Ballard	709/229
6081837	June 2000	Stedman et al.	709/219
6083276	July 2000	Davidson et al.	717/1
6085198	July 2000	Skinner et al.	707/103
6092118	July 2000	Tsang	709/246
6108703	August 2000	Leighton et al.	709/226
6115752	September 2000	Chauhan	709/241
6125359	September 2000	Lautzenheiser et al.	706/60
6128279	October 2000	O'Neil et al.	370/229
6141660	October 2000	Bach et al.	345/352
6141759	October 2000	Braddy	713/201
6144991	November 2000	England	709/205
6148335	November 2000	Haggard et al.	709/224
6148361	November 2000	Carpenter et al.	710/260
6154212	November 2000	Eick et al.	345/356
6157940	December 2000	Marullo et al.	709/22
6182182	January 2001	Bradley et al.	710/129
6202099	March 2001	Gillies et al.	709/317
6223209	April 2001	Watson	709/201
6243710	June 2001	DeMichiel et al.	707/103
6243761	June 2001	Mogul et al.	709/246

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
0123456	January 2000	EP	100/100
WO92/01251	January 1992	WO	
WO 99/08208	February 1999	WO	
WO 99/44155	September 1999	WO	

OTHER PUBLICATIONS

Kovalerchuck et al., comparison of relational methods and attribute-based methods for data mining in intelligent systems, proceedings of the 1999 IEEE, International Symposium on Intelligent Systems and Semiotics, Cambridge, MA, pp 162-166. Date Sep. 1999.
Kinexis. Object-orientation and Transaction Processing Where Do They Meet. OOPSLA Keynote, Oct. 6-11, 1991.
Lee et al. Path Dictionary: A New Access Method for Query Processing in Object-oriented Databases. IEEE Transactions on Knowledge and Data Engineering, v10, n3, May/Jun. 1998.
Buddrus et al. Enacting Authorization Models for Object-oriented Databases. Database and Expert Systems applications, Proceedings, Seventh International Workshop, Sep. 9-10, 1996, pp. 116-121.
Bertino et al. Trigger Inheritance and Overriding in an Active Object Database System. IEEE Transactions on Knowledge and Data Engineering, v12, n4. Jul./Aug., 2000.
ANSII Standard for the Programming Language C+ +, First Edition ISO/IEC 14882: 1998. Date Sep. 1998.
The Annotated C+ + Reference Manual ANSII Base Document, M.A. Ellis and B. Stroustrup. Date Jul. 1990.
IBM Dictionary of Computing, pp. 140, 241, 299, 728.
Microsoft Corporation, Microsoft Solutions Framework Overview A Quick Tour of the MSF Models, URL: http://channels.microsoft.com/enterprise/support/consult, Viewed Oct. 9, 1999.

ART-UNIT: 2153

PRIMARY-EXAMINER: Etienne; Ario

ASSISTANT-EXAMINER: Salad; Abdullahi E.

ATTY-AGENT-FIRM: Oppenheimer Wolff & Donnelly LLP

ABSTRACT:

A system, method, and article of manufacture provide for an activity module. A server and a presentation interface of a client are interfaced to permit the receipt of requests for service from the presentation interface of the client. A portion of the requests are handled on the client. Another portion of the requests are forwarded to the server for further handling purposes and changes are effected in the presentation interface.

18 Claims, 195 Drawing figures

☐ 5. Document ID: US 6636242 B2

L7: Entry 5 of 28 File: USPT Oct 21, 2003

US-PAT-NO: 6636242
DOCUMENT-IDENTIFIER: US 6636242 B2

TITLE: View configurer in a presentation services patterns environment

DATE-ISSUED: October 21, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bowman-Amuah; Michel K.	Colorado Springs	CO		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Accenture LLP	Palo Alto	CA			02

APPL-NO: 09/ 387580 [PALM]
DATE FILED: August 31, 1999

PARENT-CASE:
CROSS REFERENCE TO RELATED APPLICATIONS This application is related to United States Patent Applications entitled A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR A DEVELOPMENT ARCHITECTURE FRAMEWORK Ser. No. 09/387,747 and A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR MAINTENANCE AND ADMINISTRATION IN AN E-COMMERCE APPLICATION FRAMEWORK Ser. No. 09/387,318, both of which are filed concurrently herewith and which are incorporated by reference in their entirety.

INT-CL: [07] G06 F 3/14

US-CL-ISSUED: 345/764; 345/762, 345/765, 345/744, 345/733
US-CL-CURRENT: 345/764; 345/733, 345/744, 345/762, 345/765

FIELD-OF-SEARCH: 345/333, 345/335, 345/329, 345/339, 345/965, 345/966, 345/427, 345/428, 345/762, 345/765, 345/744, 345/733, 345/764, 709/217, 709/201, 705/5

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
5047918	September 1991	Schwartz et al.	707/203
5133075	July 1992	Risch	707/201
5187787	February 1993	Skeen et al.	709/314
5241580	August 1993	Babson, III	379/15
5291593	March 1994	Abraham et al.	707/103
5301270	April 1994	Steinberg et al.	345/326
5301320	April 1994	McAttee et al.	395/650
5313636	May 1994	Noble et al.	707/1
5414812	May 1995	Filip et al.	707/103
5434978	July 1995	Dockter et al.	709/230
5437038	July 1995	Silberbauer et al.	395/700
5457797	October 1995	Butterworth et al.	709/302
5463686	October 1995	Lebourges	379/220
5471629	November 1995	Risch	707/201
5475844	December 1995	Shiramizu et al.	709/104
5499371	March 1996	Henninger et al.	717/2
5560005	September 1996	Hoover et al.	707/10
5568644	October 1996	Nelson et al.	395/741

5581758	December 1996	Burnett et al.	707/103
5606664	February 1997	Brown et al.	709/224
5623418	April 1997	Rostoker et al.	716/1
5642511	June 1997	Chow et al.	395/701
5649139	July 1997	Weinreb et al.	707/202
5671386	September 1997	Blair et al.	395/405
5675748	October 1997	Ross	395/284
5677997	October 1997	Talatik	706/45
5680602	October 1997	Bloem et al.	707/1
5692107	November 1997	Simoudis et al.	706/12
5706506	January 1998	Jensen et al.	707/103
5708828	January 1998	Coleman	395/785
5710901	January 1998	Stodghill et al.	345/339
5715397	February 1998	Ogawa et al.	395/200.18
5721908	February 1998	Lagarde et al.	
5724575	March 1998	Hoover et al.	707/10
5732263	March 1998	Havens et al.	707/103
5732270	March 1998	Foody et al.	709/303
5737607	April 1998	Hamilton et al.	395/701
5751965	May 1998	Mayo et al.	709/224
5758351	May 1998	Gibson	707/104
5761513	June 1998	Yellin et al.	395/705
5764235	June 1998	Hunt et al.	345/428
5764955	June 1998	Doolan	709/223
5768510	June 1998	Gish	709/203
5774660	June 1998	Brendel et al.	709/201
5778368	July 1998	Hogan et al.	707/10
5787413	July 1998	Kauffman et al.	707/2
5799310	August 1998	Anderson et al.	707/102
5867153	February 1999	Grandcolas et al.	345/326
5870742	February 1999	Chang et al.	707/8
5870746	February 1999	Knutson et al.	707/101
5872973	February 1999	Mitchell et al.	709/332
5873086	February 1999	Fujii et al.	707/10
5878408	March 1999	Van Huben et al.	707/1
5890133	March 1999	Ernst	705/7
5892909	April 1999	Grasso et al.	709/201
5896383	April 1999	Wakeland	370/400
5898870	April 1999	Okuda et al.	709/104
5905873	May 1999	Hartmann et al.	395/200.79
5905897	May 1999	Chan et al.	395/733
5907704	May 1999	Gudmundson et al.	395/701
5909540	June 1999	Carter et al.	714/4
5915115	June 1999	Talati	717/5
5920703	July 1999	Campbell et al.	395/200.66
5933816	August 1999	Zeannah et al.	705/35
5940075	August 1999	Mutschler, III et al.	345/335

5940594	August 1999	Ali et al.	709/203
5946694	August 1999	Copeland et al.	707/103
5946697	August 1999	Shen	707/104
5953707	September 1999	Huang et al.	705/10
5958012	September 1999	Battat et al.	709/224
5960200	September 1999	Eager et al.	717/5
5966451	October 1999	Utsumi	380/49
5987247	November 1999	Lau	717/2
5987501	November 1999	Hamilton et al.	709/203
5987514	November 1999	Rangarajan	709/224
5987633	November 1999	Newman et al.	714/712
5995753	November 1999	Walker	717/2
5995945	November 1999	Notani et al.	705/28
5999948	December 1999	Nelson	
6006230	December 1999	Ludwig et al.	707/10
6016394	January 2000	Walker	717/1
6018743	January 2000	Xu	707/103R
6023722	February 2000	Colyer	709/201
6029174	February 2000	Sprenger et al.	707/103
6029177	February 2000	Sadiq et al.	707/201
6032153	February 2000	Sadiq et al.	707/103
6035303	March 2000	Baer et al.	707/103
6038598	March 2000	Danneels	709/219
6041365	March 2000	Kleinerman	709/302
6052739	April 2000	Bopardikar et al.	709/301
6057856	May 2000	Miyashita et al.	345/435
6070191	May 2000	Narendran et al.	709/226
6078960	June 2000	Ballard	709/229
6081837	June 2000	Stedman et al.	709/219
6083276	July 2000	Davidson et al.	717/1
6085198	July 2000	Skinner et al.	707/103
6092118	July 2000	Tsang	709/246
6108703	August 2000	Leighton et al.	709/226
6115752	September 2000	Chauhan	709/241
6125359	September 2000	Lautzenheiser et al.	706/60
6128279	October 2000	O'Neil et al.	370/229
6141660	October 2000	Bach et al.	345/352
6141759	October 2000	Braddy	713/201
6144991	November 2000	England	709/205
6148335	November 2000	Haggard et al.	709/224
6148361	November 2000	Carpenter et al.	710/260
6154212	November 2000	Eick et al.	345/356
6157940	December 2000	Marullo et al.	709/22
6182182	January 2001	Bradley et al.	710/129
6202099	March 2001	Gillies et al.	709/317
6223209	April 2001	Watson	709/201
6243761	June 2001	Mogul et al.	709/246

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
0123456	January 2000	EP	100/100
WO92/01251	January 1992	WO	
WO 99/08208	February 1999	WO	
WO 99/44155	September 1999	WO	
PCT/US00/23885	August 2000	WO	
PCT/US00/23999	August 2000	WO	
PCT/US00/24082	August 2000	WO	
PCT/US00/24083	August 2000	WO	
PCT/US00/24084	August 2000	WO	
PCT/US00/24085	August 2000	WO	
PCT/US00/24086	August 2000	WO	
PCT/US00/24125	August 2000	WO	
PCT/US/00/24188	August 2000	WO	
PCT/US00/24189	August 2000	WO	
PCT/US00/24236	August 2000	WO	

OTHER PUBLICATIONS

Kovalerchuck et al., comparison of relational methods and attribute-based methods for data mining in intelligent systems, proceedings of the 1999 IEEE, International Symposium on Intelligent Systems and Semiotics, Cambridge, MA, PP 162-166. Date Sep. 1999.
Kinexis. Object-orientation and Transaction Processing Where Do They Meet. OOPSLA Keynote, Oct. 6-11, 1991.
Lee et al. Path Dictionary: A New Access Method for Query Processing in Object-oriented Databases. IEEE Transactions on Knowledge and Data Engineering, v10, n3, May./Jun. 1998.
Buddrus et al. Enacting Authorization Models for Object-oriented Databases. Database and Expert Systems applications, Proceedings, Seventh International Workshop, Sep. 9-10, 1996, pp. 116-121.
Bertino et al. Trigger Inheritance and Overriding in an Active Object Database System. IEEE Transactions on Knowledge and Data Engineering, v12, n4. Jul./Aug., 2000.
ANSII Standard for the Programming Language C++, First Edition ISO/IEC 14882: 1998. Date Sep. 1998.
The Annotated C++ Reference Manual ANSII Base Document, M.A. Ellis and B. Stroustrup. Date Jul. 1990.
IBM Dictionary of Computing, pp. 140, 241, 299, 728.
Microsoft Corporation, Microsoft Solutions Framework Overview A Quick Tour of the MSF Models, URL: http://channels.microsoft.com/enterprise/support/support/consult, Viewed Oct. 9, 1999.

ART-UNIT: 2174

PRIMARY-EXAMINER: Sax; Steven

ASSISTANT-EXAMINER: Nguyen; Thomas T.

ATTY-AGENT-FIRM: Oppenheimer Wolff & Donnelly LLP

ABSTRACT:

A system, method and article of manufacture are provided for assigning a view to an activity. Notification is received that a startup event of an activity has occurred. A reference to a first instance of an object created by the startup event of the activity is also received. A view to launch is determined in response to the receipt of the notification and the reference. The view is based on predetermined criteria. The view is associated with the activity and displayed.

17 Claims, 195 Drawing figures

☐ 6. Document ID: US 6615253 B1

L7: Entry 6 of 28 File: USPT Sep 2, 2003

US-PAT-NO: 6615253
DOCUMENT-IDENTIFIER: US 6615253 B1
**** See image for Certificate of Correction ****

TITLE: Efficient server side data retrieval for execution of client side applications

DATE-ISSUED: September 2, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bowman-Amuah; Michel K.	Colorado Springs	CO		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Accenture LLP	Palo Alto	CA			02

APPL-NO: 09/ 387430 [PALM]
DATE FILED: August 31, 1999

PARENT-CASE:
CROSS REFERENCE TO RELATED APPLICATIONS This application is related to United States Patent Applications entitled A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR A DEVELOPMENT ARCHITECTURE FRAMEWORK U.S. patent application Ser. No. 09/387,747, filed Aug. 31, 1999 and A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR MAINTENANCE AND ADMINISTRATION IN AN E-COMMERCE APPLICATION FRAMEWORK U.S. patent application Ser. No. 09/387,318, both of which are filed concurrently herewith and which are incorporated by reference in their entirety.

INT-CL: [07] G06 F 15/16, G06 F 12/00, G06 F 17/00

US-CL-ISSUED: 709/219; 711/118, 707/100
US-CL-CURRENT: 709/219; 707/100, 711/118

FIELD-OF-SEARCH: 709/217, 709/218, 709/219, 709/203, 709/234, 709/231, 709/232, 707/100, 711/118

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
5047918	September 1991	Schwartz et al.	707/203
5133075	July 1992	Risch	707/201
5187787	February 1993	Skeen et al.	709/314
5241580	August 1993	Babson, III	379/15
5291593	March 1994	Abraham et al.	707/103
5301270	April 1994	Steinberg et al.	345/326
5301320	April 1994	McAttee et al.	395/650
5313636	May 1994	Noble et al.	707/1
5414812	May 1995	Filip et al.	707/103
5434978	July 1995	Dockter et al.	709/230
5437038	July 1995	Silberbauer et al.	395/700
5457797	October 1995	Butterworth et al.	709/302
5463686	October 1995	Lebourges	379/220
5471629	November 1995	Risch	707/201
5475844	December 1995	Shiramizu et al.	709/104
5499371	March 1996	Henninger et al.	717/2
5560005	September 1996	Hoover et al.	707/10
5568644	October 1996	Nelson et al.	395/741
5581758	December 1996	Burnett et al.	707/103
5606664	February 1997	Brown et al.	709/224
5613155	March 1997	Baldiga et al.	709/232
5623418	April 1997	Rostoker et al.	716/1
5642511	June 1997	Chow et al.	395/701
5649139	July 1997	Weinreb et al.	707/202
5671386	September 1997	Blair et al.	395/405
5675748	October 1997	Ross	395/284
5677997	October 1997	Talatik	706/45
5680602	October 1997	Bloem et al.	707/1
5692107	November 1997	Simoudis et al.	706/12
5706506	January 1998	Jensen et al.	707/103
5708828	January 1998	Coleman	395/785
5710901	January 1998	Srodghill et al.	345/339
5715397	February 1998	Ogawa et al.	395/200.18
5721908	February 1998	Lagarde et al.	395/610
5724575	March 1998	Hoover et al.	707/10
5732218	March 1998	Bland et al.	709/224
5732263	March 1998	Havens et al.	707/103
5732270	March 1998	Foody et al.	709/303
5737607	April 1998	Hamilton et al.	395/701
5751965	May 1998	Mayo et al.	709/224
5758351	May 1998	Gibson et al.	707/104
5761513	June 1998	Yellin et al.	395/705

5764235	June 1998	Hunt et al.	345/428
5764955	June 1998	Doolan	709/223
5774660	June 1998	Brendel et al.	709/201
5778368	July 1998	Hogan et al.	707/10
5787413	July 1998	Kauffman et al.	707/2
5799310	August 1998	Anderson et al.	707/102
5867153	February 1999	Grandcolas et al.	345/326
5870742	February 1999	Chang et al.	707/8
5870746	February 1999	Knutson et al.	707/101
5872973	February 1999	Mitchell et al.	709/332
5873086	February 1999	Fujii et al.	707/10
5878408	March 1999	Van Huben et al.	707/1
5890133	March 1999	Ernst	705/7
5892909	April 1999	Grasso et al.	709/201
5896383	April 1999	Wakeland	370/400
5898870	April 1999	Okuda et al.	709/104
5905873	May 1999	Hartmann et al.	395/200.79
5905897	May 1999	Chan et al.	395/733
5907704	May 1999	Gudmundson et al.	395/701
5909540	June 1999	Carter et al.	714/4
5915115	June 1999	Talati	717/5
5918004	June 1999	Anderson et al.	714/25
5920703	July 1999	Campbell et al.	395/200.66
5933816	August 1999	Zeannah et al.	705/35
5940075	August 1999	Mutschler, III et al.	345/335
5940594	August 1999	Ali et al.	709/203
5946694	August 1999	Copeland et al.	707/103
5946697	August 1999	Shen	707/104
5953707	September 1999	Huang et al.	705/10
5958012	September 1999	Battat et al.	709/224
5960200	September 1999	Eager et al.	717/5
5966451	October 1999	Utsumi	380/49
5987247	November 1999	Lau	717/2
5987501	November 1999	Hamilton et al.	709/203
5987514	November 1999	Rangarajan	709/224
5987633	November 1999	Newman et al.	714/712
5995753	November 1999	Walker	717/2
5995945	November 1999	Notani et al.	705/28
5999948	December 1999	Nelson	
5999972	December 1999	Gish	709/203
6006230	December 1999	Ludwig et al.	707/10
6016394	January 2000	Walker	717/1
6018743	January 2000	Xu	707/103R
6023722	February 2000	Colyer	709/201
6029174	February 2000	Sprenger et al.	707/103
6029177	February 2000	Sadiq et al.	707/201
6029196	February 2000	Lenz	709/203

6032153	February 2000	Sadiq et al.	707/103
6035303	March 2000	Baer et al.	707/103
6038598	March 2000	Danneels	709/219
6041365	March 2000	Kleinerman	709/302
6047357	April 2000	Bannon et al.	711/122
6052739	April 2000	Bopardikar et al.	709/301
6057856	May 2000	Miyashita et al.	345/435
6070191	May 2000	Narendran et al.	709/226
6078960	June 2000	Ballard	709/229
6081837	June 2000	Stedman et al.	709/219
6083276	July 2000	Davidson et al.	717/1
6085198	July 2000	Skinner et al.	707/103
6092118	July 2000	Tsang	709/246
6108703	August 2000	Leighton et al.	709/226
6115752	September 2000	Chauhan	709/241
6125359	September 2000	Lautzenheiser et al.	706/60
6128279	October 2000	O'Neil et al.	370/229
6141660	October 2000	Bach et al.	345/352
6141759	October 2000	Braddy	713/201
6144991	November 2000	England	709/205
6148335	November 2000	Haggard et al.	709/224
6148361	November 2000	Carpenter et al.	710/260
6154212	November 2000	Eick et al.	345/356
6157940	December 2000	Marullo et al.	709/22
6182182	January 2001	Bradley et al.	710/129
6202099	March 2001	Gillies et al.	709/317
6223209	April 2001	Watson	709/201
6243392	June 2001	Uemura et al.	370/465
6243761	June 2001	Mogul et al.	709/246
6272556	August 2001	Gish	709/315
6321274	November 2001	Shakib et al.	709/328

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
0123456	January 2000	EP	100/100
WO92/01251	January 1992	WO	
WO 99/08208	February 1999	WO	
WO 99/44155	September 1999	WO	
PCT/US00/23885	August 2000	WO	
PCT/US00/23999	August 2000	WO	
PCT/US00/24082	August 2000	WO	
PCT/US00/24083	August 2000	WO	
PCT/US00/24084	August 2000	WO	
PCT/US00/24085	August 2000	WO	
PCT/US00/24086	August 2000	WO	

PCT/US00/24125	August 2000	WO
PCT/US/00/24188	August 2000	WO
PCT/US00/24189	August 2000	WO
PCT/US00/24236	August 2000	WO

OTHER PUBLICATIONS

Kovalerchuck et al., comparison of relational methods and attribute-based methods for data mining in intelligent systems, proceedings of the 1999 IEEE, International Symposium on Intelligent Systems and Semiotics, Cambridge, MA, pp 162-166. Date Sep. 1999.
Kinexis. Object-orientation and Transaction Processing Where Do They Meet. OOPSLA Keynote, Oct. 6-11, 1991.
Lee et al. Path Dictionary: A New Access Method for Query Processing in Object-oriented Databases. IEEE Transactions on Knowledge and Data Engineering, v10, n3, May/Jun. 1998.
Buddrus et al. Enacting Authorization Models for Object-oriented Databases. Database and Expert Systems applications, Proceedings, Seventh International Workshop, Sep. 9-10, 1996, pp. 116-121.
Bertino et al. Trigger Inheritance and Overriding in an Active Object Database System. IEEE Transactions on Knowledge and Data Engineering, v12, n4. Jul./Aug., 2000.
ANSII Standard for the Programming Language C++, First Edition ISO/IEC 14882: 1998. Date Sep. 1998.
The Annotated C++ Reference Manual ANSII Base Document, M.A. Ellis and B. Stroustrup. Date Jul. 1990.
IBM Dictionary of Computing, pp. 140, 241, 299, 728.
Microsoft Corporation, Microsoft Solutions Framework Overview A Quick Tour of the MSF Models, URL: http://channels.microsoft.com/enterprise/support/support/consult, Viewed Oct. 9, 1999.

ART-UNIT: 2153

PRIMARY-EXAMINER: Lim; Krisna

ATTY-AGENT-FIRM: Oppenheimer Wolff & Donnelly LLP

ABSTRACT:

A system, method, and article of manufacture are provided for efficiently retrieving data. A total amount of data required for an application executed by a client is determined. In a single call, the total amount of data from a server is requested over a network. All of the data is bundled into a data structure by the server in response to the single call. The bundled data structure is sent to the client over the network and the data of the data structure is cached on the client. The cached data of the data structure is used as needed during execution of the application on the client.

18 Claims, 195 Drawing figures

☐ 7. Document ID: US 6615199 B1

L7: Entry 7 of 28 File: USPT Sep 2, 2003

US-PAT-NO: 6615199
DOCUMENT-IDENTIFIER: US 6615199 B1
**** See image for Certificate of Correction ****

TITLE: Abstraction factory in a base services pattern environment

DATE-ISSUED: September 2, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bowman-Amuah; Michel K.	Colorado Springs	CO		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Accenture, LLP	Palo Alto	CA			02

APPL-NO: 09/ 386831 [PALM]
DATE FILED: August 31, 1999

INT-CL: [07] G06 N 5/02

US-CL-ISSUED: 706/50
US-CL-CURRENT: 706/50

FIELD-OF-SEARCH: 706/45, 706/50, 706/11

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
5301320	April 1994	McAtee et al.	395/650
5721908	February 1998	Lagarde et al.	395/610
5890133	March 1999	Ernst	705/7
5907704	May 1999	Gudmundson et al.	395/701
5953707	September 1999	Huang et al.	705/10
6195794	February 2001	Buxton	395/701
6199099	March 2001	Gershman et al.	709/203

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
wo 99/08208	February 1899	WO	

OTHER PUBLICATIONS

Microsoft Corporation, Microsoft Solutions Framework Overview A Quick Tour of the MSF Models, URL: http://channels.microsoft.com/enterprise/support/support/consult, Viewed Oct. 9, 1999.

ART-UNIT: 2121

PRIMARY-EXAMINER: Follansbee; John

ASSISTANT-EXAMINER: Hirl; Joseph P.

ATTY-AGENT-FIRM: Oppenheimer Wolff & Donnelly LLP

ABSTRACT:

An abstraction factory pattern in a client/server architecture receives and transforms data into a plurality of concrete objects. Each of the concrete objects is associated with an abstract interface. A map of the association between the concrete objects and the abstract interface is created. When a request is received from the client (which includes an identifier for one of the concrete objects and an identifier for the abstract interface) the map on the server is consulted to locate the concrete object that has been identified. Then, an abstract object is created that corresponds to the located concrete object such that the abstract object serves as a handle, generically manipulable by the client/server architecture. The invention represents a way to encapsulate diversity such that only those parts of the system that need to understand the difference between two objects have to deal with those differences.

12 Claims, 195 Drawing figures

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw. De

---

☐ 8. Document ID: US 6606660 B1

L7: Entry 8 of 28 File: USPT Aug 12, 2003

US-PAT-NO: 6606660
DOCUMENT-IDENTIFIER: US 6606660 B1

TITLE: Stream-based communication in a communication services patterns environment

DATE-ISSUED: August 12, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bowman-Amuah; Michel K.	Colorado Springs	CO		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Accenture LLP	Palo Alto	CA			02

APPL-NO: 09/ 386717 [PALM]
DATE FILED: August 31, 1999

PARENT-CASE:
CROSS REFERENCE TO RELATED APPLICATIONS This application is related to United States Patent Applications entitled A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR A DEVELOPMENT ARCHITECTURE FRAMEWORK and A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR MAINTENANCE AND ADMINISTRATION IN AN E-COMMERCE APPLICATION

FRAMEWORK, both of which are filed concurrently herewith and which are incorporated by reference in their entirety.

INT-CL: [07] G06 F 15/16

US-CL-ISSUED: 709/227
US-CL-CURRENT: 709/227

FIELD-OF-SEARCH: 709/227, 709/228, 709/230, 709/231, 709/232

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
5301320	April 1994	McAtKee et al.	395/650
5671226	September 1997	Murakami et al.	370/474
5671386	September 1997	Blair et al.	395/405
5708828	January 1998	Coleman	395/785
5715397	February 1998	Ogawa et al.	395/200.18
5721908	February 1998	Lagarde et al.	395/610
5737607	April 1998	Hamilton et al.	395/701
5864682	January 1999	Porter et al.	395/200.77
5890133	March 1999	Ernst	705/7
5896383	April 1999	Wakeland	370/400
5905873	May 1999	Hartmann	395/200.79
5907704	May 1999	Gudmundson et al.	395/701
5953707	September 1999	Huang et al.	705/10
5966451	October 1999	Utsumi	380/49

OTHER PUBLICATIONS

Microsoft Corporation, Microsoft Solutions Framework Overview A Quick Tour of the MSF Models, URL: http://channels.microsoft.com/enterprise/support/support/consult, Viewed Oct. 9, 1999.

ART-UNIT: 2153

PRIMARY-EXAMINER: Burgess; Glenton B.

ASSISTANT-EXAMINER: Kupstas; Tod

ATTY-AGENT-FIRM: Oppenheimer Wolff & Donnelly LLP

ABSTRACT:

A system, method, and article of manufacture are disclosed for providing a stream-based communication system. A shared format is defined on interface code for a sending system and a receiving system. A message to be sent from the sending system to the receiving system is translated based on the shared format. Once translated, the message is then sent from the sending system and received by the receiving system. Once the message is received by the receiving system, the message is then translated based on the shared format.

18 Claims, 195 Drawing figures

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw D

☐ 9. Document ID: US 6601234 B1

L7: Entry 9 of 28 File: USPT Jul 29, 2003

US-PAT-NO: 6601234
DOCUMENT-IDENTIFIER: US 6601234 B1

TITLE: Attribute dictionary in a business logic services environment

DATE-ISSUED: July 29, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bowman-Amuah; Michel K.	Colorado Springs	CO		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Accenture LLP	Palo Alto	CA			02

APPL-NO: 09/ 388022 [PALM]
DATE FILED: August 31, 1999

INT-CL: [07] G06 F 9/44

US-CL-ISSUED: 717/108; 717/107, 717/116, 705/7
US-CL-CURRENT: 717/108; 705/7, 717/107, 717/116

FIELD-OF-SEARCH: 705/7-11, 717/107, 717/109

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
5047918	September 1991	Schwartz et al.	707/203
5133075	July 1992	Risch	707/201
5187787	February 1993	Skeen et al.	709/314
5241580	August 1993	Babson, III	379/15
5291593	March 1994	Abraham et al.	707/103
5301270	April 1994	Steinberg et al.	345/326
5301320	April 1994	McAttee et al.	395/650
5313636	May 1994	Noble et al.	707/1
5414812	May 1995	Filip et al.	707/103
5434978	July 1995	Dockter et al.	709/230
5437038	July 1995	Silberbauer et al.	395/700

5457797	October 1995	Butterworth et al.	709/302
5463686	October 1995	Lebourges	379/220
5471629	November 1995	Risch	707/201
5475844	December 1995	Shiramizu et al.	709/104
5499371	March 1996	Henninger et al.	717/2
5560005	September 1996	Hoover et al.	707/10
5568644	October 1996	Nelson et al.	395/741
5581758	December 1996	Burnett et al.	707/103
5606664	February 1997	Brown et al.	709/224
5623418	April 1997	Rostoker et al.	716/1
5642511	June 1997	Chow et al.	395/701
5649139	July 1997	Weinreb et al.	707/202
5671386	September 1997	Blair et al.	395/405
5675748	October 1997	Ross	395/284
5677997	October 1997	Talatik	706/45
5680602	October 1997	Bloem et al.	707/1
5692107	November 1997	Simoudis et al.	706/12
5706506	January 1998	Jensen et al.	707/103
5708828	January 1998	Coleman	395/785
5710901	January 1998	Srodghill et al.	345/339
5715397	February 1998	Ogawa et al.	395/200.18
5721908	February 1998	Lagarde et al.	
5724575	March 1998	Hoover et al.	707/10
5732263	March 1998	Havens et al.	707/103
5732270	March 1998	Foody et al.	709/303
5737607	April 1998	Hamilton et al.	395/701
5751965	May 1998	Mayo et al.	709/224
5758351	May 1998	Gibson	707/104
5761513	June 1998	Yellin et al.	395/705
5764235	June 1998	Hunt et al.	345/428
5764955	June 1998	Doolan	709/223
5774660	June 1998	Brendel et al.	709/201
5778368	July 1998	Hogan et al.	707/10
5787413	July 1998	Kauffman et al.	707/2
5799310	August 1998	Anderson et al.	707/102
5867153	February 1999	Grandcolas et al.	345/326
5870742	February 1999	Chang et al.	707/8
5870746	February 1999	Knutson et al.	707/101
5872973	February 1999	Mitchell et al.	709/332
5873086	February 1999	Fujii et al.	707/10
5878408	March 1999	Van Huben et al.	707/1
5890133	March 1999	Ernst	705/7
5892909	April 1999	Grasso et al.	709/201
5896383	April 1999	Wakeland	370/400
5898870	April 1999	Okuda et al.	709/104
5905873	May 1999	Hartmann et al.	395/200.79
5905897	May 1999	Chan et al.	395/733

5907704	May 1999	Gudmundson et al.	395/701
5909540	June 1999	Carter et al.	714/4
5915115	June 1999	Talati	717/5
5920703	July 1999	Campbell et al.	395/200.66
5933816	August 1999	Zeannah et al.	705/35
5940075	August 1999	Mutschler, III et al.	345/335
5940594	August 1999	Ali et al.	709/203
5946694	August 1999	Copeland et al.	707/103
5946697	August 1999	Shen	707/104
5953707	September 1999	Huang et al.	705/10
5958012	September 1999	Battat et al.	709/224
5960200	September 1999	Eager et al.	717/5
5966451	October 1999	Utsumi	380/49
5987247	November 1999	Lau	717/2
5987501	November 1999	Hamilton et al.	709/203
5987514	November 1999	Rangarajan	709/224
5987633	November 1999	Newman et al.	714/712
5995753	November 1999	Walker	717/2
5995945	November 1999	Notani et al.	705/28
5995975	November 1999	Malcolm	707/103
5999948	December 1999	Nelson	
6006230	December 1999	Ludwig et al.	707/10
6016394	January 2000	Walker	717/1
6018743	January 2000	Xu	707/103R
6023722	February 2000	Colyer	709/201
6029174	February 2000	Sprenger et al.	707/103
6029177	February 2000	Sadiq et al.	707/201
6032153	February 2000	Sadiq et al.	707/103
6035303	March 2000	Baer et al.	707/103
6038598	March 2000	Danneels	709/219
6041365	March 2000	Kleinerman	709/302
6052739	April 2000	Bopardikar et al.	709/301
6057856	May 2000	Miyashita et al.	345/435
6070191	May 2000	Narendran et al.	709/226
6078960	June 2000	Ballard	709/229
6081837	June 2000	Stedman et al.	709/219
6083276	July 2000	Davidson et al.	717/1
6085198	July 2000	Skinner et al.	707/103
6092118	July 2000	Tsang	709/246
6108703	August 2000	Leighton et al.	709/226
6115752	September 2000	Chauhan	709/241
6125359	September 2000	Lautzenheiser et al.	706/60
6128279	October 2000	O'Neil et al.	370/229
6141660	October 2000	Bach et al.	345/352
6141759	October 2000	Braddy	713/201
6144991	November 2000	England	709/205
6148335	November 2000	Haggard et al.	709/224

6148361	November 2000	Carpenter et al.	710/260
6154212	November 2000	Eick et al.	345/356
6157940	December 2000	Marullo et al.	709/22
6182182	January 2001	Bradley et al.	710/129
6202099	March 2001	Gillies et al.	709/319
6223209	April 2001	Watson	709/201
6243761	June 2001	Mogul et al.	709/246

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
0123456	January 2000	EP	100/100
WO92/01251	January 1992	WO	
WO 99/08208	February 1999	WO	
WO 99/44155	September 1999	WO	
PCT/US00/23885	August 2000	WO	
PCT/US00/23999	August 2000	WO	
PCT/US00/24082	August 2000	WO	
PCT/US00/24083	August 2000	WO	
PCT/US00/24084	August 2000	WO	
PCT/US00/24085	August 2000	WO	
PCT/US00/24086	August 2000	WO	
PCT/US00/24125	August 2000	WO	
PCT/US/00/24188	August 2000	WO	
PCT/US00/24189	August 2000	WO	
PCT/US00/24236	August 2000	WO	

OTHER PUBLICATIONS

Stefik, M. Bobrow, D.G., and Kahn, K. Access-oriented programming for a multiparadigm environment. Proceedings of the Hawaii International Conference on System Sciences, Jan. 1986.*
Lutz, Mark. Programming Python. O'Reilly & Associates, 1996, pp. 415-416, downloaded Jul. 15, 2002 from NetLibrary.com.*
Gamma, Erich et al. Design Patterns: Elements of Resuable Object-oriented Software. Addison-Wesley, 1994, pp. 185-193.*
Rosenthala, James W. et al. A Fine-grained Access Control Model for Object-oriented DBMSs. First published in IFIP Transactions: Database Security VII, Elsevier, 1995.*
Wang, Haojin. "Managed Object Class Dictionary" in Telecommunications Network Management, McGraw-Hill, 1999, Appendix D. Retrieved from Books24x7.com on Jul. 15, 2002.*
Kinexis. Object-orientation and Transaction Processing: Where Do They Meet. OOPSLA Keynote, Oct. 6-11, 1991.*
Lee et al. Path Dictionary: A New Access Method for Query Processing in Object-oriented Databases. IEEE Transactions on Knowledge and Data Engineering, v10, n3, May/Jun. 1998.*
Buddrus et al. Enacting Authorization Models for Object-oriented Databases. Database and Expert Systems Applications, Proceedings., Seventh International Workshop, Sep. 9-10, 1996, pp. 116-121.*
Bertino et al. Trigger Inheritance and Overriding in an Active Object Database

System. IEEE Transactions on Knowledge and Data Engineering, v12, n4, Jul./Aug., 2000.*
Kovalerchuck et al., comparison of relational methods and attribute-based methods for data mining in intelligent systems, proceedings of the 1999 IEEE, International Symposium on Intelligent Systems and Semiotics, Cambridge, MA, PP 162-166. Date Sep. 1999.
ANSII Standard for the Programming Language C++, First Edition ISO/IEC 14882: 1998. Date Sep. 1998.
The Annotated C++ Reference Manual ANSII Base Document, M.A. Ellis and B. Stroustrup. Date Jul. 1990.
IBM Dictionary of Computing, pp. 140, 241, 299, 728.
Microsoft Corporation, Microsoft Solutions Framework Overview A Quick Tour of the MSF Models, URL: http://channels.microsoft.com/enterprise/support/support/consult, Viewed Oct. 9, 1999.
Microsoft Corporation, Microsoft Solutions Framework Overview A Quick Tour of the MSF Models, URL: http://channels.microsoft.com/enterprise/support/support/consult, Viewed Oct. 9, 1999.

ART-UNIT: 3623

PRIMARY-EXAMINER: Hafiz; Tariq R.

ASSISTANT-EXAMINER: Jeanty; Romain

ATTY-AGENT-FIRM: Oppenheimer Wolff & Donnelly LLP

ABSTRACT:

A system and method are provided for controlling access to data of a business object via an attribute dictionary. The attribute dictionary, which stores attribute names and values, is dispatched over a network. A helper facade is provided for interfacing a business object and the attribute dictionary. Next, it is verified that a current user is authorized to either set or get one of the attribute values upon a request which includes the attribute name that corresponds to the attribute value. The helper facade is called to set, get, or update one of the attribute values based on the corresponding attribute name, wherein the helper facade shields the attribute dictionary from the application code of the business object. The attribute value in the attribute dictionary is obtained or updated if the verification is successful, and a dirty flag is set in the attribute dictionary and an indicator is broadcast upon the attribute value being updated.

15 Claims, 195 Drawing figures

☐ 10. Document ID: US 6601192 B1

L7: Entry 10 of 28 File: USPT Jul 29, 2003

US-PAT-NO: 6601192
DOCUMENT-IDENTIFIER: US 6601192 B1

TITLE: Assertion component in environment services patterns

DATE-ISSUED: July 29, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bowman-Amuah; Michel K.	Colorado Springs	CO		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Accenture LLP	Palo Alto	CA			02

APPL-NO: 09/ 388021 [PALM]
DATE FILED: August 31, 1999

INT-CL: [07] G06 F 11/00

US-CL-ISSUED: 714/38
US-CL-CURRENT: 714/38

FIELD-OF-SEARCH: 714/24, 714/37, 714/38, 714/47, 717/101, 717/127

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
5047918	September 1991	Schwartz et al.	707/203
5133075	July 1992	Risch	707/201
5187787	February 1993	Skeen et al.	709/314
5241580	August 1993	Babson, III	379/15
5291593	March 1994	Abraham et al.	707/103
5301270	April 1994	Steinberg et al.	345/326
5301320	April 1994	McAttee et al.	395/650
5313636	May 1994	Noble et al.	707/1
5414812	May 1995	Filip et al.	707/103
5434978	July 1995	Dockter et al.	709/230
5437038	July 1995	Silberbauer et al.	395/700
5457797	October 1995	Butterworth et al.	709/302
5463686	October 1995	Lebourges	379/220
5471629	November 1995	Risch	707/201
5475844	December 1995	Shiramizu et al.	709/104
5490249	February 1996	Miller	714/38
5499371	March 1996	Henninger et al.	717/2
5560005	September 1996	Hoover et al.	707/10
5568644	October 1996	Nelson et al.	395/741
5581758	December 1996	Burnett et al.	707/103
5606664	February 1997	Brown et al.	709/224
5623418	April 1997	Rostoker et al.	716/1
5642511	June 1997	Chow et al.	395/701
5649139	July 1997	Weinreb et al.	707/202
5652835	July 1997	Miller	714/38
5671386	September 1997	Blair et al.	395/405

5675748	October 1997	Ross	395/284
5677997	October 1997	Talatik	706/45
5680602	October 1997	Bloem et al.	707/1
5692107	November 1997	Simoudis et al.	706/12
5706506	January 1998	Jensen et al.	707/103
5708828	January 1998	Coleman	395/785
5710901	January 1998	Srodghill et al.	345/339
5715397	February 1998	Ogawa et al.	395/200.18
5721908	February 1998	Lagarde et al.	395/610
5724575	March 1998	Hoover et al.	707/10
5732263	March 1998	Havens et al.	707/103
5732270	March 1998	Foody et al.	709/303
5737607	April 1998	Hamilton et al.	395/701
5751965	May 1998	Mayo et al.	709/224
5758351	May 1998	Gibson	707/104
5761513	June 1998	Yellin et al.	395/705
5764235	June 1998	Hunt et al.	345/428
5764955	June 1998	Doolan	709/223
5774660	June 1998	Brendel et al.	709/201
5778368	July 1998	Hogan et al.	707/10
5787413	July 1998	Kauffman et al.	707/2
5799310	August 1998	Anderson et al.	707/102
5867153	February 1999	Grandcolas et al.	345/326
5870742	February 1999	Chang et al.	707/8
5870746	February 1999	Knutson et al.	707/101
5872973	February 1999	Mitchell et al.	709/332
5873086	February 1999	Fujii et al.	707/10
5878408	March 1999	Van Huben et al.	707/1
5890133	March 1999	Ernst	705/7
5892909	April 1999	Grasso et al.	709/201
5896383	April 1999	Wakeland	370/400
5898870	April 1999	Okuda et al.	709/104
5905873	May 1999	Hartmann et al.	395/200.79
5905897	May 1999	Chan et al.	395/733
5907704	May 1999	Gudmundson et al.	395/701
5909540	June 1999	Carter et al.	714/4
5915115	June 1999	Talati	717/5
5920703	July 1999	Campbell et al.	395/200.66
5933816	August 1999	Zeannah et al.	705/35
5940075	August 1999	Mutschler, III et al.	345/335
5940594	August 1999	Ali et al.	709/203
5946694	August 1999	Copeland et al.	707/103
5946697	August 1999	Shen	707/104
5953707	September 1999	Huang et al.	705/10
5958012	September 1999	Battat et al.	709/224
5960200	September 1999	Eager et al.	717/5
5963739	October 1999	Homeier	717/126

5966451	October 1999	Utsumi	380/49
5987247	November 1999	Lau	717/2
5987501	November 1999	Hamilton et al.	709/203
5987514	November 1999	Rangarajan	709/224
5987633	November 1999	Newman et al.	714/712
5995753	November 1999	Walker	717/2
5995945	November 1999	Notani et al.	705/28
5999948	December 1999	Nelson	
6006230	December 1999	Ludwig et al.	707/10
6016394	January 2000	Walker	717/1
6018743	January 2000	Xu	707/103R
6023722	February 2000	Colyer	709/201
6029174	February 2000	Sprenger et al.	707/103
6029177	February 2000	Sadiq et al.	707/201
6032153	February 2000	Sadiq et al.	707/103
6035303	March 2000	Baer et al.	707/103
6038598	March 2000	Danneels	709/219
6041365	March 2000	Kleinerman	709/302
6052739	April 2000	Bopardikar et al.	709/301
6057856	May 2000	Miyashita et al.	345/435
6070191	May 2000	Narendran et al.	709/226
6078960	June 2000	Ballard	709/229
6081837	June 2000	Stedman et al.	709/219
6083276	July 2000	Davidson et al.	717/1
6085198	July 2000	Skinner et al.	707/103
6092118	July 2000	Tsang	709/246
6108703	August 2000	Leighton et al.	709/226
6115752	September 2000	Chauhan	709/241
6125359	September 2000	Lautzenheiser et al.	706/60
6128279	October 2000	O'Neil et al.	370/229
6141660	October 2000	Bach et al.	345/352
6141759	October 2000	Braddy	713/201
6144991	November 2000	England	709/205
6148335	November 2000	Haggard et al.	709/224
6148361	November 2000	Carpenter et al.	710/260
6154212	November 2000	Eick et al.	345/356
6157940	December 2000	Marullo et al.	709/22
6182182	January 2001	Bradley et al.	710/129
6182244	January 2001	Bankemper et al.	714/38
6202099	March 2001	Gillies et al.	709/317
6223209	April 2001	Watson	709/201
6243761	June 2001	Mogul et al.	709/246
6336148	January 2002	Doong et al.	709/316
6421740	July 2002	LeCroy	709/331
6457142	September 2002	Klemm et al.	714/38

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
0123456	January 2000	EP	100/100
WO92/01251	January 1992	WO	
WO 99/08208	February 1999	WO	
WO 99/44155	September 1999	WO	
PCT/US00/23885	August 2000	WO	
PCT/US00/23999	August 2000	WO	
PCT/US00/24082	August 2000	WO	
PCT/US00/24083	August 2000	WO	
PCT/US00/24084	August 2000	WO	
PCT/US00/24085	August 2000	WO	
PCT/US00/24086	August 2000	WO	
PCT/US00/24125	August 2000	WO	
PCT/US00/24188	August 2000	WO	
PCT/US00/24189	August 2000	WO	
PCT/US00/24236	August 2000	WO	

OTHER PUBLICATIONS

Kovalerchuck et al., comparison of relational methods and attribute-based methods for data mining in intelligent systems, proceedings of the 1999 IEEE, International Symposium on Intelligent Systems and Semiotics, Cambridge, MA, PP 162-166. Date Sep. 1999.
Kinexis. Object-orientation and Transaction Processing Where Do They Meet. OOPSLA Keynote, Oct. 6-11, 1991.
Lee et al. Path Dictionary: A New Access Method for Query Processing in Object-oriented Databases. IEEE Transactions on Knowledge and Data Engineering, v10, n3, May/Jun. 1998.
Buddrus et al. Enacting Authorization Models for Object-oriented Databases. Database and Expert Systems applications, Proceedings, Seventh International Workshop, Sep. 9-10, 1996, pp. 116-121.
Bertino et al. Trigger Inheritance and Overriding in an Active Object Database System. IEEE Transactions on Knowledge and Data Engineering, v12, n4. Jul./Aug., 2000.
ANSIT Standard for the Programming Language C++, First Edition ISO/IEC 14882: 1998. Date Sep. 1998.
The Annotated C++ Reference Manual ANSIT Base Document, M.A. Ellis and B. Stroustrup. Date Jul. 1990.
IBM Dictionary of Computing, pp. 140, 241, 299, 728.
Microsoft Corporation, Microsoft Solutions Framework Overview A Quick Tour of the MSF Models, URL:http://channels.microsoft.com/enterprise/support/support/consult, Viewed Oct. 9, 1999.
Microsoft Corporation, Microsoft Solutions Framework Overview A Quick Tour of the MSF Models, URL: http://channels.microsoft.com/enterprise/support/support/consult, Viewed Oct. 9, 1999.

ART-UNIT: 2857

PRIMARY-EXAMINER: Beausoliel; Robert

ASSISTANT-EXAMINER: Bonzo; Bryce P.

ATTY-AGENT-FIRM: Oppenheimer Wolff & Donnelly LLP

ABSTRACT:

A system and method are provided for testing successfulness of an operation having pre-conditions and post-conditions that must be satisfied for the operation to be successful. Two types of assertion classes are provided, where one of the of the assertion classes implements assertion-checking logic and the other assertion class implements only null operations, and one of the assertion classes is selected to be raised. A first assertion is raised asserting a pre-condition that must evaluate to true if the operation is successful. The operation is then executed. A second assertion is raised asserting a post-condition that must evaluate to true if the operation is successful. An error message is outputted upon failure of at least one of the assertions, where the failed assertion implements assertion-checking logic.

15 Claims, 195 Drawing figures

☐ 11. Document ID: US 6578068 B1

L7: Entry 11 of 28 File: USPT Jun 10, 2003

US-PAT-NO: 6578068
DOCUMENT-IDENTIFIER: US 6578068 B1

TITLE: Load balancer in environment services patterns

DATE-ISSUED: June 10, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bowman-Amuah; Michel K.	Colorado Springs	CO		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Accenture LLP	Palo Alto	CA			02

APPL-NO: 09/ 387576 [PALM]
DATE FILED: August 31, 1999

PARENT-CASE:
CROSS REFERENCE TO RELATED APPLICATIONS This application is related to United States Patent Applications entitled A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR A DEVELOPMENT ARCHITECTURE FRAMEWORK Ser. No. 09/387,747, now abandoned, and A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR MAINTENANCE AND ADMINISTRATION IN AN E-COMMERCE APPLICATION FRAMEWORK, Ser. No. 09/387,318, still pending both of which are filed concurrently herewith and which are incorporated by reference in their entirety.

INT-CL: [07] G06 F 15/16

US-CL-ISSUED: 709/203; 709/105, 709/226
US-CL-CURRENT: 709/203; 709/226, 718/105

FIELD-OF-SEARCH: 709/226, 709/201, 709/203, 709/202, 709/223, 709/224, 709/235,

709/238, 709/239, 709/106, 709/105

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
5047918	September 1991	Schwartz et al.	707/203
5133075	July 1992	Risch	707/201
5187787	February 1993	Skeen et al.	709/314
5241580	August 1993	Babson, III	379/15
5257369	October 1993	Skeen et al.	
5291593	March 1994	Abraham et al.	707/103
5301270	April 1994	Steinberg et al.	345/326
5301320	April 1994	McAttee et al.	395/650
5313636	May 1994	Noble et al.	707/1
5414812	May 1995	Filip et al.	707/103
5434978	July 1995	Dockter et al.	709/230
5437038	July 1995	Silberbauer et al.	395/700
5457797	October 1995	Butterworth et al.	709/302
5459837	October 1995	Caccavale	
5463686	October 1995	Lebourges	379/220
5471629	November 1995	Risch	707/201
5475844	December 1995	Shiramizu et al.	709/104
5499371	March 1996	Henninger et al.	717/2
5560005	September 1996	Hoover et al.	707/10
5568644	October 1996	Nelson et al.	395/741
5581758	December 1996	Burnett et al.	707/103
5606664	February 1997	Brown et al.	709/224
5623418	April 1997	Rostoker et al.	716/1
5642511	June 1997	Chow et al.	395/701
5649139	July 1997	Weinreb et al.	707/202
5671386	September 1997	Blair et al.	395/405
5675748	October 1997	Ross	395/284
5677997	October 1997	Talatik	706/45
5680602	October 1997	Bloem et al.	707/1
5692107	November 1997	Simoudis et al.	706/12
5706506	January 1998	Jensen et al.	707/103
5708828	January 1998	Coleman	395/785
5710901	January 1998	Stodghill et al.	345/339
5715397	February 1998	Ogawa et al.	395/200.18
5721908	February 1998	Lagarde et al.	395/610
5724575	March 1998	Hoover et al.	707/10
5732263	March 1998	Havens et al.	707/103
5732270	March 1998	Foody et al.	709/303
5737607	April 1998	Hamilton et al.	395/701
5751965	May 1998	Mayo et al.	709/224

5758351	May 1998	Gibson	707/104
5761513	June 1998	Yellin et al.	395/705
5764235	June 1998	Hunt et al.	345/428
5764955	June 1998	Doolan	709/223
5774660	June 1998	Brendel et al.	709/201
5778368	July 1998	Hogan et al.	707/10
5787413	July 1998	Kauffman et al.	707/2
5799310	August 1998	Anderson et al.	707/102
5867153	February 1999	Grandcolas et al.	345/326
5870742	February 1999	Chang et al.	707/8
5870746	February 1999	Knutson et al.	707/101
5872973	February 1999	Mitchell et al.	709/332
5873086	February 1999	Fujii et al.	707/10
5878408	March 1999	Van Huben et al.	707/1
5881238	March 1999	Aman et al.	
5890133	March 1999	Ernst	705/7
5892909	April 1999	Grasso et al.	709/201
5892946	April 1999	Woster et al.	
5896383	April 1999	Wakeland	370/400
5898870	April 1999	Okuda et al.	709/104
5903757	May 1999	Gretz et al.	717/4
5905873	May 1999	Hartmann et al.	395/200.79
5905897	May 1999	Chou et al.	395/733
5907704	May 1999	Gudmundson et al.	395/701
5909540	June 1999	Carter et al.	714/4
5915115	June 1999	Talati	717/5
5920703	July 1999	Campbell et al.	395/200.66
5933816	August 1999	Zeannah et al.	705/35
5940075	August 1999	Mutschler, III et al.	345/335
5940594	August 1999	Ali et al.	709/203
5946694	August 1999	Copeland et al.	707/103
5946697	August 1999	Shen	707/104
5953707	September 1999	Huang et al.	705/10
5958012	September 1999	Battat et al.	709/224
5960200	September 1999	Eager et al.	717/5
5966451	October 1999	Utsumi	380/49
5987247	November 1999	Lau	717/2
5987501	November 1999	Hamilton et al.	709/203
5987514	November 1999	Rangarajan	709/224
5987633	November 1999	Newman et al.	714/712
5995753	November 1999	Walker	717/2
5995945	November 1999	Notani et al.	705/28
5999948	December 1999	Nelson et al.	
6006230	December 1999	Ludwig et al.	707/10
6016394	January 2000	Walker	717/1
6018743	January 2000	Xu	707/103R
6023722	February 2000	Colyer	709/201

6029174	February 2000	Sprenger et al.	707/103
6029177	February 2000	Sadiq et al.	707/201
6032153	February 2000	Sadiq et al.	707/103
6035303	March 2000	Baer et al.	707/103
6038598	March 2000	Danneels	709/219
6041365	March 2000	Kleinerman	709/302
6052739	April 2000	Bopardikar et al.	709/301
6057856	May 2000	Miyashita et al.	345/435
6070191	May 2000	Narendran et al.	709/226
6078960	June 2000	Ballard	709/229
6081837	June 2000	Stedman et al.	709/219
6083276	July 2000	Davidson et al.	717/1
6085198	July 2000	Skinner et al.	707/103
6092118	July 2000	Tsang	709/246
6108703	August 2000	Leighton et al.	709/226
6115752	September 2000	Chauhan	709/241
6125359	September 2000	Lautzenheiser et al.	706/60
6128279	October 2000	O'Neil et al.	370/229
6141660	October 2000	Bach et al.	345/352
6141759	October 2000	Braddy	713/201
6144991	November 2000	England	709/205
6148335	November 2000	Haggard et al.	709/224
6148361	November 2000	Carpenter et al.	710/260
6154212	November 2000	Eick et al.	345/356
6157940	December 2000	Marullo et al.	709/22
6182182	January 2001	Bradley et al.	710/129
6185601	February 2001	Wolf	709/203
6202099	March 2001	Gillies et al.	709/317
6223209	April 2001	Watson	709/201
6243761	June 2001	Mogul et al.	709/246
6317786	November 2001	Yamane et al.	709/224

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
0817020	January 1998	EP	100/100
0123456	January 2000	EP	
WO92/01251	January 1992	WO	
WO 99/08208	February 1999	WO	
WO 99/44155	September 1999	WO	
PCT/US00/23885	August 2000	WO	
PCT/US00/23999	August 2000	WO	
PCT/US00/24082	August 2000	WO	
PCT/US00/24083	August 2000	WO	
PCT/US00/24084	August 2000	WO	
PCT/US00/24085	August 2000	WO	

PCT/US00/24086	August 2000	WO
PCT/US00/24125	August 2000	WO
PCT/US/00/24188	August 2000	WO
PCT/US00/24189	August 2000	WO
PCT/US00/24236	August 2000	WO

OTHER PUBLICATIONS

Microsoft Corporation, Microsoft Solutions Framework Overview A Quick Tour of the MSF Models, URL:http://channels.microsoft.com/enterprise/support/support/consult, Viewed Oct. 9, 1999.
IBM Technical Disclosure Bulletin, vol. 39 No. 5, May 1996, p. 59.
Diwan et al., "Adaptive Utilization of Communication and Computational Resources in High-Performance Distributed Systems: The EMOP Approach", Jul. 28, 1998, pp. 2-9.
Kovalerchuck et al., 'comparison of relational methods and attribute-based methods for data mining in intelligent systems, proceedings of the 1999 IEEE, International Symposium on Intelligent Systems and Semiotics, Cambridge, MA, PP 162-166. Date Sep. 1999.
Kinexis. Object-orientation and Transaction Processing Where Do They Meet. OOPSLA Keynote, Oct. 6-11, 1991.
Lee et al. Path Dictionary: A New Access Method for Query Processing in Object-oriented Databases. IEEE Transactions on Knowledge and Data Engineering, v10, n3, May/Jun. 1998.
Buddrus et al. Enacting Authorization Models for Object-oriented Databases. Database and Expert Systems applications, Proceedings, Seventh International Workshop, Sep. 9-10, 1996, pp. 116-121.
Bertino et al. Trigger Inheritance and Overriding in an Active Object Database System. IEEE Transactions on Knowledge and Data Engineering, v12, n4. Jul./Aug., 2000.
ANSII Standard for the Programming Language C++, First Edition ISO/IEC 14882: 1998. Date Sep. 1998.
The Annotated C++Reference Manual ANSII Base Document, M.A. Ellis and B. Stroustrup. Date Jul. 1990.
IBM Dictionary of Computing, pp. 140, 241, 299, 728.
Microsoft Corporation, Microsoft Solutions Framework Overview A Quick Tour of the MSF Models, URL: http://channels.microsoft.com/enterprise/support/support/consult, Viewed Oct. 9, 1999.

ART-UNIT: 2153

PRIMARY-EXAMINER: Etienne; Ario

ASSISTANT-EXAMINER: Salad; Abdullahi E.

ATTY-AGENT-FIRM: Oppenheimer Wolff & Donnelly LLP

ABSTRACT:

A system and method are provided for distributing incoming requests from a user interface amongst a client and server components for optimizing usage of resources. Incoming requests are first received and stored by an activity module. The activity module instructs a client to handle a first subset of the requests and passes a second subset of the requests on to a utilization-based load balancer. The second subset of the requests are stored on the load balancer, and an availability of server components is determined and a listing of available server components is compiled. A determination is made as to which server component on the listing of available server components is most appropriate to receive a particular request.

Each particular request of the second subset of requests is sent to the selected server component determined to be most appropriate to receive the particular request.

12 Claims, 195 Drawing figures

☐ 12. Document ID: US 6571282 B1

L7: Entry 12 of 28 File: USPT May 27, 2003

US-PAT-NO: 6571282
DOCUMENT-IDENTIFIER: US 6571282 B1

TITLE: Block-based communication in a communication services patterns environment

DATE-ISSUED: May 27, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bowman-Amuah; Michel K.	Colorado Springs	CO		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Accenture LLP	Palo Alto	CA			02

APPL-NO: 09/ 387874 [PALM]
DATE FILED: August 31, 1999

PARENT-CASE:
CROSS REFERENCE TO RELATED APPLICATIONS This application is related to U.S. patent applications entitled A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR A DEVELOPMENT ARCHITECTURE FRAMEWORK, Ser. No. 09/387,747, and A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR MAINTENANCE AND ADMINISTRATION IN AN E-COMMERCE APPLICATION FRAMEWORK, Ser. No. 09/387,318, both of which are filed concurrently herewith and which are incorporated by reference in their entirety.

INT-CL: [07] G06 F 13/00

US-CL-ISSUED: 709/219; 709/203, 709/329, 707/10
US-CL-CURRENT: 709/219; 707/10, 709/203, 719/329

FIELD-OF-SEARCH: 709/203, 709/217, 709/219, 709/328, 709/329, 707/10, 707/100, 707/104

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
5047918	September 1991	Schwartz et al.	707/203

5133075	July 1992	Risch	707/201
5187787	February 1993	Skeen et al.	709/314
5241580	August 1993	Babson, III	379/15
5291593	March 1994	Abraham et al.	707/103
5301270	April 1994	Steinberg et al.	345/326
5301320	April 1994	McAttee et al.	395/650
5313636	May 1994	Noble et al.	707/1
5414812	May 1995	Filip et al.	707/103
5434978	July 1995	Dockter et al.	709/230
5437038	July 1995	Silberbauer et al.	395/700
5457797	October 1995	Butterworth et al.	709/302
5463686	October 1995	Lebourges	379/220
5471629	November 1995	Risch	707/201
5475844	December 1995	Shiramizu et al.	709/104
5499371	March 1996	Henninger et al.	717/2
5560005	September 1996	Hoover et al.	707/10
5568644	October 1996	Nelson et al.	395/741
5581758	December 1996	Burnett et al.	707/103
5606664	February 1997	Brown et al.	709/224
5623418	April 1997	Rostoker et al.	716/1
5642511	June 1997	Chow et al.	395/701
5649139	July 1997	Weinreb et al.	707/202
5671386	September 1997	Blair et al.	395/405
5675748	October 1997	Ross	395/284
5677997	October 1997	Talatik	706/45
5680602	October 1997	Bloem et al.	707/1
5692107	November 1997	Simoudis et al.	706/12
5706506	January 1998	Jensen et al.	707/103
5708828	January 1998	Coleman	395/785
5710901	January 1998	Srodghill et al.	345/339
5715397	February 1998	Ogawa et al.	395/200.18
5721908	February 1998	Lagarde et al.	395/610
5724575	March 1998	Hoover et al.	707/10
5732263	March 1998	Havens et al.	707/103
5732270	March 1998	Foody et al.	709/303
5737607	April 1998	Hamilton et al.	395/701
5751965	May 1998	Mayo et al.	709/224
5758351	May 1998	Gibson	707/104
5761513	June 1998	Yellin et al.	395/705
5764235	June 1998	Hunt et al.	345/428
5764955	June 1998	Doolan	709/223
5774660	June 1998	Brendel et al.	709/201
5778368	July 1998	Hogan et al.	707/10
5787413	July 1998	Kauffman et al.	707/2
5799310	August 1998	Anderson et al.	707/102
5867153	February 1999	Grandcolas et al.	345/326
5870742	February 1999	Chang et al.	707/8

5870746	February 1999	Knutson et al.	707/101
5872973	February 1999	Mitchell et al.	709/332
5873086	February 1999	Fujii et al.	707/10
5878408	March 1999	Van Huben et al.	707/1
5890133	March 1999	Ernst	705/7
5892909	April 1999	Grasso et al.	709/201
5896383	April 1999	Wakeland	370/400
5898870	April 1999	Okuda et al.	709/104
5905873	May 1999	Hartmann et al.	395/200.79
5905897	May 1999	Chan et al.	395/733
5907704	May 1999	Gudmundson et al.	395/701
5909540	June 1999	Carter et al.	714/4
5915115	June 1999	Talati	717/5
5920703	July 1999	Campbell et al.	395/200.66
5933816	August 1999	Zeannah et al.	705/35
5940075	August 1999	Mutschler, III et al.	345/335
5940594	August 1999	Ali et al.	709/203
5946694	August 1999	Copeland et al.	707/103
5946697	August 1999	Shen	707/104
5953707	September 1999	Huang et al.	705/10
5958012	September 1999	Battat et al.	709/224
5960200	September 1999	Eager et al.	717/5
5966451	October 1999	Utsumi	380/49
5987247	November 1999	Lau	717/2
5987501	November 1999	Hamilton et al.	709/203
5987514	November 1999	Rangarajan	709/224
5987633	November 1999	Newman et al.	714/712
5995753	November 1999	Walker	717/2
5995945	November 1999	Notani et al.	705/28
5999948	December 1999	Nelson	
6006230	December 1999	Ludwig et al.	707/10
6016394	January 2000	Walker	717/1
6018743	January 2000	Xu	707/103R
6023722	February 2000	Colyer	709/201
6029174	February 2000	Sprenger et al.	707/103
6029177	February 2000	Sadiq et al.	707/201
6032153	February 2000	Sadiq et al.	707/103
6035303	March 2000	Baer et al.	707/103
6038598	March 2000	Danneels	709/219
6041365	March 2000	Kleinerman	709/302
6052739	April 2000	Bopardikar et al.	709/301
6057856	May 2000	Miyashita et al.	345/435
6070191	May 2000	Narendran et al.	709/226
6073168	June 2000	Mighdoll et al.	709/217
6078960	June 2000	Ballard	709/229
6081837	June 2000	Stedman et al.	709/219
6083276	July 2000	Davidson et al.	717/1

6085198	July 2000	Skinner et al.	707/103
6092118	July 2000	Tsang	709/246
6108703	August 2000	Leighton et al.	709/226
6115752	September 2000	Chauhan	709/241
6125359	September 2000	Lautzenheiser et al.	706/60
6128279	October 2000	O'Neil et al.	370/229
6141660	October 2000	Bach et al.	345/352
6141759	October 2000	Braddy	713/201
6144991	November 2000	England	709/205
6148335	November 2000	Haggard et al.	709/224
6148361	November 2000	Carpenter et al.	710/260
6154212	November 2000	Eick et al.	345/356
6157940	December 2000	Marullo et al.	709/22
6167441	December 2000	Himmel	709/217
6182182	January 2001	Bradley et al.	710/129
6192407	February 2001	Smith et al.	709/229
6202099	March 2001	Gillies et al.	709/317
6223209	April 2001	Watson	709/201
6243711	June 2001	Wu et al.	707/104
6243761	June 2001	Mogul et al.	709/246
6272534	August 2001	Guha	709/216
6304909	October 2001	Mullaly et al.	709/232

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
0123456	January 2000	EP	100/100
WO92/01251	January 1992	WO	
WO 99/08208	February 1999	WO	
WO 99/44155	September 1999	WO	
PCT/US00/23885	August 2000	WO	
PCT/US00/23999	August 2000	WO	
PCT/US00/24082	August 2000	WO	
PCT/US00/24083	August 2000	WO	
PCT/US00/24084	August 2000	WO	
PCT/US00/24085	August 2000	WO	
PCT/US00/24086	August 2000	WO	
PCT/US00/24125	August 2000	WO	
PCT/US/00/24188	August 2000	WO	
PCT/US00/24189	August 2000	WO	
PCT/US00/24236	August 2000	WO	

OTHER PUBLICATIONS

Kovalerchuck et al., comparison of relational methods and attribute-based methods for data mining in intelligent systems, proceedings of the 1999 IEEE, International Symposium on Intelligent Systems and Semiotics, Cambridge, MA, pp 162-166. Date Sep. 1999.

Kinexis. Object-orientation and Transaction Processing Where Do They Meet. OOPSLA Keynote, Oct., 6-11, 1991.
Lee et al. Path Dictionary: A New Access Method for Query Processing in Object-oriented Databases. IEEE Transactions on Knowledge and Data Engineering, v10, n3, May/Jun. 1998.
Buddrus et al. Enacting Authorization Modelsfor Object-oriented Databases. Database and Expert Systems applications, Proceedings, Seventh International Workshop, Sep. 9-10, 1996, pp. 116-121.
Bertino et al. Trigger Inheritance and Overriding in an Active Object Database System. IEEE Transactions on Knowledge and Data Engineering, v12, n4. Jul./Aug., 2000.
ANSII Standard for the Programming Language C++, First Edition ISO/IEC 14882: 1998. Date Sep. 1998.
The Annotated C++ Reference Manual ANSII Base Document, M.A. Ellis and B. Stroustrup. Date Jul. 1990.
IBM Dictionary of Computing, pp. 140, 241, 299, 728, undated.
Microsoft Corporation, Microsoft Solutions Framework Overview A Quick Tour of the MSF Models, URL: http://channels.microsoft.com/enterprise/support/support/consult, Viewed Oct. 9, 1999.

ART-UNIT: 2154

PRIMARY-EXAMINER: Vu; Viet D.

ATTY-AGENT-FIRM: Oppenheimer Wolff & Donnelly LLP

ABSTRACT:

A system and method are provided for transmitting data from a server to a client via blocks. A user query for a solution set is transmitted to a server, which is then used to query a database for a first subset of the solution set. A first block of data is built from data in the database of the server, containing a subset of the solution set, and is then sent to the client over a network. When a second request from the client for the data in the database of the server is received, a second block of the data sets is queried from the database, built, and then transmitted to the client over the network.

18 Claims, 195 Drawing figures

☐ 13. Document ID: US 6550057 B1

L7: Entry 13 of 28 File: USPT Apr 15, 2003

US-PAT-NO: 6550057
DOCUMENT-IDENTIFIER: US 6550057 B1
**** See image for Certificate of Correction ****

TITLE: Piecemeal retrieval in an information services patterns environment

DATE-ISSUED: April 15, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY

Bowman-Amuah; Michel K. Colorado Springs CO

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Accenture LLP	Palo Alto	CA			02

APPL-NO: 09/ 386433 [PALM]
DATE FILED: August 31, 1999

INT-CL: [07] G06 F 9/44

US-CL-ISSUED: 717/126; 717/101, 717/102, 717/113, 717/108, 717/109, 707/5, 700/80
US-CL-CURRENT: 717/126; 700/80, 707/5, 717/101, 717/102, 717/108, 717/109, 717/113

FIELD-OF-SEARCH: 717/11, 717/10, 717/126, 717/116, 717/100, 717/124, 717/109, 717/104, 717/105, 717/113, 717/101, 717/102, 707/3, 707/4, 707/5, 707/13R, 714/2, 714/48, 700/80

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
4864497	September 1989	Lowry et al.	707/102
5261098	November 1993	Katin et al.	
5301320	April 1994	McAttee et al.	395/650
5557731	September 1996	Li et al.	345/762
5721908	February 1998	Lagarde et al.	395/610
5794234	August 1998	Church et al.	707/4
5806061	September 1998	Chaudhuri et al.	707/3
5835910	November 1998	Kavanagh et al.	707/103
5864865	January 1999	Lakis	707/103
5890133	March 1999	Ernst	705/7
5907704	May 1999	Gudmundson et al.	395/701
5953707	September 1999	Huang et al.	705/10
6009458	December 1999	Hawkins et al.	709/203
6047287	April 2000	Caruana	707/5
6113649	September 2000	Govindaraj	717/113
6246404	June 2001	Feigner et al.	345/708
6337696	January 2002	Lindhorst et al.	345/708
6405211	June 2002	Sokol et al.	707/10

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
WO 99/08208	February 1999	WO	

OTHER PUBLICATIONS

Title: Modeling Hierarchies with Contradiction, author: Borgida, ACM 1988.*
Query execution strategies for missing data in distributed heterogeneous object databases, Jia.perspectiveto.Ling Koh, 1996.*
Microsoft Corporation, Microsoft Solutions Framework Overview A Quick Tour of the MSF Models, URL: http://channels.microsoft.com/enterprise/support/support/consult, Viewed Oct. 9, 1999.

ART-UNIT: 2122

PRIMARY-EXAMINER: Dam; Tuan Q.

ASSISTANT-EXAMINER: Das; Chameli C.

ATTY-AGENT-FIRM: Oppenheimer Wolff & Donnelly LLP

ABSTRACT:

A system, method and article of manufacture are provided for providing a warning upon retrieval of objects that are incomplete. An object is provided with at least one missing attribute. Upon receipt of a request from an application for the object access to the attributes of the object is allowed by the application. A warning is provided upon an attempt to access the attribute of the object that is missing.

15 Claims, 195 Drawing figures

☐ 14. Document ID: US 6549949 B1

L7: Entry 14 of 28 File: USPT Apr 15, 2003

US-PAT-NO: 6549949
DOCUMENT-IDENTIFIER: US 6549949 B1

TITLE: Fixed format stream in a communication services patterns environment

DATE-ISSUED: April 15, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bowman-Amuah; Michel K.	Colorado Springs	CO		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Accenture LLP	Palo Alto	CA			02

APPL-NO: 09/ 386430 [PALM]
DATE FILED: August 31, 1999

PARENT-CASE:
CROSS REFERENCE TO RELATED APPLICATIONS This application is related to United States Patent Applications entitled A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR A DEVELOPMENT ARCHITECTURE FRAMEWORK (Ser. No. 09/387,747 filed Aug. 31, 1999now abandoned) and A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR MAINTENANCE AND

ADMINISTRATION IN AN E-COMMERCE APPLICATION FRAMEWORK (Ser. No. 09/387,318 filed Aug. 31, 1999 (pending)), both of which are filed concurrently herewith and which are incorporated by reference in their entirety.

INT-CL: [07] G06 F 15/16

US-CL-ISSUED: 709/236; 709/246
US-CL-CURRENT: 709/236; 709/246

FIELD-OF-SEARCH: 709/230, 709/246, 709/314, 709/231, 709/236

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
5047918	September 1991	Schwartz et al.	707/203
5133075	July 1992	Risch	707/201
5187787	February 1993	Skeen et al.	709/314
5241580	August 1993	Babson, III	379/15
5291593	March 1994	Abraham et al.	707/103
5301270	April 1994	Steinberg et al.	345/326
5301320	April 1994	McAttee et al.	395/650
5313636	May 1994	Noble et al.	707/1
5414812	May 1995	Filip et al.	707/103
5434978	July 1995	Dockter et al.	709/230
5437038	July 1995	Silberbauer et al.	395/700
5457797	October 1995	Butterworth et al.	709/302
5463686	October 1995	Lebourges	379/220
5471629	November 1995	Risch	707/201
5475844	December 1995	Shiramizu et al.	709/104
5499371	March 1996	Henninger et al.	717/2
5560005	September 1996	Hoover et al.	707/10
5568644	October 1996	Nelson et al.	395/741
5581758	December 1996	Burnett et al.	707/103
5606664	February 1997	Brown et al.	709/224
5623418	April 1997	Rostoker et al.	716/1
5642511	June 1997	Chow et al.	395/701
5649139	July 1997	Weinreb et al.	707/202
5671386	September 1997	Blair et al.	395/405
5675748	October 1997	Ross	395/284
5677997	October 1997	Talatik	706/45
5680602	October 1997	Bloem et al.	707/1
5692107	November 1997	Simoudis et al.	706/12
5706506	January 1998	Jensen et al.	707/103
5708828	January 1998	Coleman	395/785
5710901	January 1998	Srodghill et al.	345/339
5715397	February 1998	Ogawa et al.	395/200.18
5721908	February 1998	Lagarde et al.	395/610

5724575	March 1998	Hoover et al.	707/10
5732263	March 1998	Havens et al.	707/103
5732270	March 1998	Foody et al.	709/303
5737607	April 1998	Hamilton et al.	395/701
5751965	May 1998	Mayo et al.	709/224
5758351	May 1998	Gibson	707/104
5761513	June 1998	Yellin et al.	395/705
5764235	June 1998	Hunt et al.	345/428
5764955	June 1998	Doolan	709/223
5774660	June 1998	Brendel et al.	709/201
5778368	July 1998	Hogan et al.	707/10
5787413	July 1998	Kauffman et al.	707/2
5799310	August 1998	Anderson et al.	707/102
5867153	February 1999	Grandcolas et al.	345/326
5870742	February 1999	Chang et al.	707/8
5870746	February 1999	Knutson et al.	707/101
5872973	February 1999	Mitchell et al.	709/332
5873086	February 1999	Fujii et al.	707/10
5878408	March 1999	Van Huben et al.	707/1
5890133	March 1999	Ernst	705/7
5892909	April 1999	Grasso et al.	709/201
5896383	April 1999	Wakeland	370/400
5898870	April 1999	Okuda et al.	709/104
5905873	May 1999	Hartmann et al.	395/200.79
5905897	May 1999	Chan et al.	395/733
5907704	May 1999	Gudmundson et al.	395/701
5909540	June 1999	Carter et al.	714/4
5915115	June 1999	Talati	717/5
5920703	July 1999	Campbell et al.	395/200.66
5933816	August 1999	Zeannah et al.	705/35
5940075	August 1999	Mutschler, III et al.	345/335
5940594	August 1999	Ali et al.	709/203
5946694	August 1999	Copeland et al.	707/103
5946697	August 1999	Shen	707/104
5953707	September 1999	Huang et al.	705/10
5958012	September 1999	Battat et al.	709/224
5960200	September 1999	Eager et al.	717/5
5966451	October 1999	Utsumi	380/49
5987247	November 1999	Lau	717/2
5987501	November 1999	Hamilton et al.	709/203
5987514	November 1999	Rangarajan	709/224
5987633	November 1999	Newman et al.	714/712
5995753	November 1999	Walker	717/2
5995945	November 1999	Notani et al.	705/28
5999948	December 1999	Nelson	
6006230	December 1999	Ludwig et al.	707/10
6016394	January 2000	Walker	717/1

6018743	January 2000	Xu	707/103R
6023722	February 2000	Colyer	709/201
6029174	February 2000	Sprenger et al.	707/103
6029177	February 2000	Sadiq et al.	707/201
6032153	February 2000	Sadiq et al.	707/103
6035303	March 2000	Baer et al.	707/103
6038598	March 2000	Danneels	709/219
6041365	March 2000	Kleinerman	709/302
6052739	April 2000	Bopardikar et al.	709/301
6057856	May 2000	Miyashita et al.	345/435
6070191	May 2000	Narendran et al.	709/226
6078960	June 2000	Ballard	709/229
6081837	June 2000	Stedman et al.	709/219
6083276	July 2000	Davidson et al.	717/1
6085198	July 2000	Skinner et al.	707/103
6092118	July 2000	Tsang	709/246
6108703	August 2000	Leighton et al.	709/226
6115752	September 2000	Chauhan	709/241
6125359	September 2000	Lautzenheiser et al.	706/60
6128279	October 2000	O'Neil et al.	370/229
6141660	October 2000	Bach et al.	345/352
6141759	October 2000	Braddy	713/201
6144991	November 2000	England	709/205
6148335	November 2000	Haggard et al.	709/224
6148361	November 2000	Carpenter et al.	710/260
6154212	November 2000	Eick et al.	345/356
6157940	December 2000	Marullo et al.	709/22
6182182	January 2001	Bradley et al.	710/129
6202099	March 2001	Gillies et al.	709/317
6223209	April 2001	Watson	709/201
6243761	June 2001	Mogul et al.	709/246

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
0123456	January 2000	EP	100/100
WO92/01251	January 1992	WO	
WO 99/08208	February 1999	WO	
WO 99/44155	September 1999	WO	
PCT/US00/23885	August 2000	WO	
PCT/US00/23999	August 2000	WO	
PCT/US00/24082	August 2000	WO	
PCT/US00/24083	August 2000	WO	
PCT/US00/24085	August 2000	WO	
PCT/US00/24086	August 2000	WO	
PCT/US00/24125	August 2000	WO	

PCT/US/00/24188	August 2000	WO
PCT/US00/24189	August 2000	WO
PCT/US00/24236	August 2000	WO

OTHER PUBLICATIONS

Kovalerchuck et al., 'Comparison of relational methods and attribute-based methods for data mining in intelligent systems, proceedings of the 1999 IEEE, International Symposium on Intelligent Systems and Semiotics, Cambridge, MA, PP 162-166. Date Sep. 1999.*
Kinexis. Object-orientation and Transaction Processing Where Do They Meet. OOPSLA Keynote, Oct. 6-11, 1991.*
Lee et al. Path Dictionary: A New Access Method for Query Processing in Object-oriented Databases. IEEE Transactions on Knowledge and Data Engineering, v10, n3, May/Jun. 1998.*
Buddrus et al. Enacting Authorization Models for Object-oriented Databases. Database and Expert Systems applications, Proceedings, Seventh International Workshop, Sep. 9-10, 1996, pp. 116-121.*
Bertino et al. Trigger Inheritance and Overriding in an Active Object Database System. IEEE Transactions on Knowledge and Data Engineering, v12, n4. Jul./Aug., 2000.*
ANSII Standard for the Programming Language C+ +, First Edition ISO/IEC 14882: 1998. Date Sep. 1998.*
The Annotated C+ + Reference Manual ANSII Base Document, M.A. Ellis and B. Stroustrup. Date Jul. 1990.*
IBM Dictionary of Computing, pp. 140, 241, 299, 728.*
Microsoft Corporation, Microsoft Solutions Framework Overview A Quick Tour of the MSF Models, URL:
http://channels.microsoft.com/enterprise/support/support/consult,Viewed Oct. 9, 1999.

ART-UNIT: 2153

PRIMARY-EXAMINER: Dinh; Dung C.

ATTY-AGENT-FIRM: Oppenheimer Wolff & Donnelly LLP

ABSTRACT:

A system, method, and article of manufacture provide a fixed format stream-based communication system. A sending fixed format contract on interface code is defined for a sending system. A receiving fixed format contract on interface code is also defined for a receiving system. A message to be sent from the sending system to the receiving system is translated based on the sending fixed format contract. The message is then sent from the sending system and subsequently received by the receiving system. The message received by the receiving system is then translated based on the receiving fixed format contract.

20 Claims, 195 Drawing figures

☐ 15. Document ID: US 6539396 B1

L7: Entry 15 of 28 File: USPT Mar 25, 2003

US-PAT-NO: 6539396
DOCUMENT-IDENTIFIER: US 6539396 B1
** See image for Certificate of Correction **

TITLE: Multi-object identifier system and method for information service pattern environment

DATE-ISSUED: March 25, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bowman-Amuah; Michel K.	Colorado Springs	CO		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Accenture LLP	Palo Alto	CA			02

APPL-NO: 09/ 386714 [PALM]
DATE FILED: August 31, 1999

PARENT-CASE:
CROSS REFERENCE TO RELATED APPLICATIONS This application is related to U.S. patent applications Ser. No. 09/386,619, filed Aug. 31, 1999 now pending, entitled A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR A DEVELOPMENT ARCHITECTURE FRAMEWORK and Ser. No. 09/387,318, filed Aug. 31, 1999, entitled A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR MAINTENANCE AND ADMINISTRATION IN AN E-COMMERCE APPLICATION FRAMEWORK, both of which are filed concurrently herewith and which are incorporated by reference in their entirety.

INT-CL: [07] G06 F 17/00

US-CL-ISSUED: 707/103; 707/101, 707/102, 707/203, 707/202, 711/118
US-CL-CURRENT: 707/103R; 707/101, 707/102, 707/103X, 707/202, 707/203, 711/118

FIELD-OF-SEARCH: 707/103, 707/102, 707/101, 707/202, 707/203, 711/118

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
5291593	March 1994	Abraham et al.	707/103
5301320	April 1994	McAttee et al.	395/650
5581758	December 1996	Burnett et al.	707/103
5706506	January 1998	Jensen et al.	707/103
5721908	February 1998	Lagarde et al.	395/610
5732263	March 1998	Havens et al.	707/103
5890133	March 1999	Ernst	705/7
5907704	May 1999	Gudmundson et al.	395/701
5953707	September 1999	Huang et al.	705/10
6026413	February 2000	Challenger et al.	707/202
6070165	May 2000	Whitmore	707/101

6173292	January 2001	Barber et al.	707/200
6199141	March 2001	Weinreb et al.	711/118
6289358	September 2001	Mattis et al.	707/203

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
WO 99/08208	February 1999	WO	

OTHER PUBLICATIONS

Kato et al., "Persistent Caching: An Implementation Technique for Complex Objects with Object Identity", IEEE, 1992, pp. 631-645.*
Microsoft Corporation, Microsoft Solutions Framework Overview A Quick Tour of the MSF Models, URL: http://channels.microsoft.com/enterprise/support/support/consult, viewed Oct. 9, 1999.

ART-UNIT: 2171

PRIMARY-EXAMINER: Mizrahi; Diane D.

ASSISTANT-EXAMINER: Pardo; Thuy

ATTY-AGENT-FIRM: Oppenheimer Wolff & Donnelly LLP

ABSTRACT:

A system and method for implementing an association of business objects without retrieving said objects from a database on which they are stored. A business object in the business cache is provided and an instance of an associated object is stored on a database. An association of the business object with the instance of the associated object is determined. An object identifier is generated containing information including the determination association which is necessary to retrieve the instance of the associated object from the database, wherein the object identifier includes a unique row identifier, an identifier generated by a utility, and a unique string generated from one or more attributes. The object identifier is loaded when the business object starts. A location of the instance of the associated object on the database is determined from the object identifier and the instance of the associated object is retrieved from the database.

15 Claims, 195 Drawing figures

☐ 16. Document ID: US 6529948 B1

L7: Entry 16 of 28 File: USPT Mar 4, 2003

US-PAT-NO: 6529948
DOCUMENT-IDENTIFIER: US 6529948 B1
**** See image for Certificate of Correction ****

TITLE: Multi-object fetch component

DATE-ISSUED: March 4, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bowman-Amuah; Michel K.	Colorado Springs	CO		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Accenture LLP	Palo Alto	CA			02

APPL-NO: 09/ 386238 [PALM]
DATE FILED: August 31, 1999

PARENT-CASE:
CROSS REFERENCE TO RELATED APPLICATIONS This application is related to United States Patent Applications entitled A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR A DEVELOPMENT ARCHITECTURE FRAMEWORK 09/387,747 and A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR MAINTENANCE AND ADMINISTRATION IN AN E-COMMERCE APPLICATION FRAMEWORK, 09/387,318 both of which are filed concurrently herewith and which are incorporated by reference in their entirety.

INT-CL: [07] G06 F 15/16, G06 F 7/00, G06 F 17/00

US-CL-ISSUED: 709/217; 709/219, 707/103
US-CL-CURRENT: 709/217; 709/219

FIELD-OF-SEARCH: 709/217, 709/218, 709/219, 709/205, 707/101, 707/102, 707/13R, 707/13Y, 707/103, 707/13Z

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
5301320	April 1994	McAttee et al.	395/650
5721908	February 1998	Lagarde et al.	395/610
5832496	November 1998	Anand et al.	707/102
5870746	February 1999	Knutson et al.	707/101
5890133	March 1999	Ernst	705/7
5893106	April 1999	Brobst et al.	707/102
5907704	May 1999	Gudmundson et al.	395/701
5953707	September 1999	Huang et al.	705/10
5956728	September 1999	Federighi et al.	707/103
5987423	November 1999	Arnold et al.	705/14
6014673	January 2000	Davis et al.	707/202
6085197	July 2000	Federighi et al.	707/102
6163776	December 2000	Periwal	707/4
6199068	March 2001	Carpenter	707/100
6418445	July 2002	Moerbeek	707/103
6418451	July 2002	Maimone	707/200

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
WO 99/08208	February 1999	WO	

OTHER PUBLICATIONS

Microsoft Corporation, Microsoft Solutions Framework Overview A Quick Tour of the MSF Models, URL:http://channels.microsoft.com/enterprise/support/support/consult, Viewed Oct. 9, 1999.

ART-UNIT: 2754

PRIMARY-EXAMINER: Dinh; Dung C.

ASSISTANT-EXAMINER: Kupstas; Tod

ATTY-AGENT-FIRM: Oppenheimer Wolff & Donnelly LLP

ABSTRACT:

A system, method, and article of manufacture are provided for retrieving multiple business objects across a network in one access operation. A business object and a plurality of remaining objects are provided on a persistent store. Upon receiving a request for the business object, it is established which of the remaining objects are related to the business object. The related objects and the business object are retrieved from the persistent store in one operation and it is determined how the retrieved related objects relate to the business object and each other. A graph of relationships of the business and related objects is instantiated in memory.

18 Claims, 195 Drawing figures

☐ 17. Document ID: US 6529909 B1

L7: Entry 17 of 28 File: USPT Mar 4, 2003

US-PAT-NO: 6529909
DOCUMENT-IDENTIFIER: US 6529909 B1
**** See image for Certificate of Correction ****

TITLE: Method for translating an object attribute converter in an information services patterns environment

DATE-ISSUED: March 4, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bowman-Amuah; Michel K.	Colorado Springs	CO		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Accenture LLP	Palo Alto	CA			02

APPL-NO: 09/ 386837 [PALM]
DATE FILED: August 31, 1999

PARENT-CASE:
CROSS REFERENCE TO RELATED APPLICATIONS This application is related to United States Patent Applications entitled A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR, A DEVELOPMENT ARCHITECTURE FRAMEWORK, application Ser. No. 09/387,747 and A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR MAINTENANCE AND ADMINISTRATION IN AN E-COMMERCE APPLICATION FRAMEWORK, application Ser. No. 09/387,318, both of which are filed concurrently herewith and which are incorporated by reference in their entirety.

INT-CL: [07] G06 F 17/30

US-CL-ISSUED: 707/10; 707/1
US-CL-CURRENT: 707/10; 707/1

FIELD-OF-SEARCH: 707/1, 707/3, 707/4, 707/8, 707/10, 707/102, 707/103, 345/352, 717/1

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
5301320	April 1994	McAttee et al.	705/9
5560005	September 1996	Hoover et al.	707/10
5721908	February 1998	Lagarde et al.	707/10
5724575	March 1998	Hoover et al.	707/10
5870742	February 1999	Chang et al.	707/8
5873086	February 1999	Fujii et al.	707/10
5878408	March 1999	Van Huben et al.	707/1
5890133	March 1999	Ernst	705/7
5907704	May 1999	Gudmundson et al.	717/1
5953707	September 1999	Huang et al.	705/10
6018743	January 2000	Xu	707/103R
6035303	March 2000	Baer et al.	707/103
6083276	July 2000	Davidson et al.	717/1
6141660	October 2000	Bach et al.	345/352

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
WO 99/08208	February 1999	WO	

OTHER PUBLICATIONS

Kovalerchuck et al. comparison of relational methods and attribute-based methods for data mining in intelligent systems, Proceedings of the 1999 IEEE, International Symposium on Intelligent Systems and Semiotics, Cambridge, MA, PP 162-166, Sep. 1999.*
Microsoft Corporation, Microsoft Solutions Framework Overview A Quick Tour of the MSF Models, URL: http://channels.microsoft.com/enterprise/support/support/consult, Viewed Oct. 9, 1999.

ART-UNIT: 2358

PRIMARY-EXAMINER: Mizrahi; Diane D.

ASSISTANT-EXAMINER: Benson; Walter

ATTY-AGENT-FIRM: Oppenheimer Wolff & Donnelly LLP

ABSTRACT:

A system, method and article of manufacture are provided for translating an object attribute to and from a database value. A database is provided and a conversion process is determined for converting an object attribute to and from a database value. The conversion process is encapsulated in an attribute converter. A first object attribute is directed to the attribute converter for conversion to a first database value. A second database value is directed to the attribute converter for conversion to a second object attribute. The second attribute converter is substituted for the attribute converter for altering the conversion of the attribute, and the attribute converter is altered for relieving a performance bottleneck.

12 Claims, 195 Drawing figures

☐ 18. Document ID: US 6502213 B1

L7: Entry 18 of 28 File: USPT Dec 31, 2002

US-PAT-NO: 6502213
DOCUMENT-IDENTIFIER: US 6502213 B1
**** See image for Certificate of Correction ****

TITLE: System, method, and article of manufacture for a polymorphic exception handler in environment services patterns

DATE-ISSUED: December 31, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bowman-Amuah; Michel K.	Colorado Springs	CO		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Accenture LLP	Palo Alto	CA			02

APPL-NO: 09/ 386432 [PALM]
DATE FILED: August 31, 1999

INT-CL: [07] H02 H 3/05, G06 F 13/24

US-CL-ISSUED: 714/49; 710/266, 710/268, 710/269
US-CL-CURRENT: 714/49; 710/266, 710/268, 710/269

FIELD-OF-SEARCH: 714/34, 714/50, 714/49, 710/263-265, 710/266, 710/268, 710/48, 710/269, 710/260, 710/261

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
5463686	October 1995	Lebourges	379/220
5568644	October 1996	Nelson et al.	395/741
5675748	October 1997	Ross	395/284
5761513	June 1998	Yellin et al.	395/705
5905897	May 1999	Chon et al.	395/733
6052739	April 2000	Bopardikar et al.	709/301
6148361	November 2000	Carpenter et al.	710/260

ART-UNIT: 2131

PRIMARY-EXAMINER: Wright; Norman M.

ATTY-AGENT-FIRM: Oppenheimer Wolff & Donnelly LLP

ABSTRACT:

A system, method and article of manufacture are provided for minimizing the amount of changes that need to be made to exception handling logic when new exceptions are added. Exceptions are organized into hierarchies in a polymorphic exception handler. A root of one of the hierarchies in which an exception occurs is caught. The exception is instructed to rethrow itself. The rethrown exception is caught and identified. A type of the rethrown exception is determined and a message is outputted indicating the type of the rethrown exception.

15 Claims, 195 Drawing figures

☐ 19. Document ID: US 6496850 B1

L7: Entry 19 of 28 File: USPT Dec 17, 2002

US-PAT-NO: 6496850
DOCUMENT-IDENTIFIER: US 6496850 B1

TITLE: Clean-up of orphaned server contexts

DATE-ISSUED: December 17, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bowman-Amuah; Michel K.	Colorado Springs	CO		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Accenture LLP	Palo Alto	CA			02

APPL-NO: 09/ 386435 [PALM]
DATE FILED: August 31, 1999

INT-CL: [07] G06 F 15/16, G06 F 15/173

US-CL-ISSUED: 709/203; 709/224, 709/228, 707/102, 707/103
US-CL-CURRENT: 709/203; 707/102, 709/224, 709/228

FIELD-OF-SEARCH: 709/203, 709/224, 709/228, 707/102, 707/103

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
5301320	April 1994	McAttee et al.	395/650
5721908	February 1998	Lagarde et al.	395/610
5812844	September 1998	Jones et al.	709/104
5890133	March 1999	Ernst	705/7
5893106	April 1999	Brobst et al.	707/102
5907704	May 1999	Gudmundson et al.	395/701
5920725	July 1999	Ma et al.	395/712
5953707	September 1999	Huang et al.	705/10
6128663	October 2000	Thomas	709/228
6163776	December 2000	Periwal	707/4
6263360	July 2001	Arnold et al.	709/203

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
WO 99/08208	February 1999	WO	

OTHER PUBLICATIONS

One page of an abstract of KR Patent No. 2001001413:*
Microsoft Corporation, Microsoft Solutions Framework Overview A Quick Tour of the MSF Models, URL: http://channels.microsoft.com/enterprise/support/consult, Viewed

Oct. 9, 1999.

ART-UNIT: 2153

PRIMARY-EXAMINER: Lim; Krisna

ATTY-AGENT-FIRM: Oppenheimer Wolff & Donnelly LLP

ABSTRACT:

A system, method and article of manufacture are provided for detecting an orphaned server context. A collection of outstanding server objects is maintained and a list of contexts is created for each of the outstanding server objects. A compilation of clients who are interested in each of the outstanding server objects are added to the list. Recorded on the list is a duration of time since the clients invoked a method accessing each of the contexts of the outstanding server objects. The list is examined at predetermined intervals for determining whether a predetermined amount of time has passed since each of the objects has been accessed. Contexts that have not been accessed in the predetermined amount of time are selected and information is sent to the clients identifying the contexts that have not been accessed in the predetermined amount of time.

19 Claims, 195 Drawing figures

☐ 20. Document ID: US 6477665 B1

L7: Entry 20 of 28 File: USPT Nov 5, 2002

US-PAT-NO: 6477665
DOCUMENT-IDENTIFIER: US 6477665 B1

TITLE: System, method, and article of manufacture for environment services patterns in a netcentic environment

DATE-ISSUED: November 5, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bowman-Amuah; Michel K.	Colorado Springs	CO		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Accenture LLP	Palo Alto	CA			02

APPL-NO: 09/ 386716 [PALM]
DATE FILED: August 31, 1999

INT-CL: [07] G06 F 11/00

US-CL-ISSUED: 714/39; 712/244
US-CL-CURRENT: 714/39; 712/244

FIELD-OF-SEARCH: 714/39, 714/43, 714/44, 714/45, 714/47, 714/35, 714/51, 714/38, 712/244, 712/245, 712/227, 712/228

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
5197138	March 1993	Hobbs et al.	395/375
5301320	April 1994	McAttee et al.	395/650
5721908	February 1998	Lagarde et al.	395/610
5761407	June 1998	Benson et al.	395/183.13
5784613	July 1998	Tamiirisa	395/670
5890133	March 1999	Ernst	705/7
5901308	May 1999	Cohn et al.	395/591
5907704	May 1999	Gudmundson et al.	395/701
5909574	June 1999	Meyer	395/591
5953707	September 1999	Huang et al.	705/10
5978940	November 1999	Newman et al.	714/712
6023580	February 2000	Sifter	395/704

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
WO 99/08208	February 1999	WO	

OTHER PUBLICATIONS

Microsoft Corporation, Microsoft Solutions Framework Overview A Quick Tour of the MSF Models, URL: http://channels.microsoft.com/enterprise/support/support/consult, Viewed Oct. 9, 1999.

ART-UNIT: 2184

PRIMARY-EXAMINER: Iqbal; Nadeem

ATTY-AGENT-FIRM: Oppenheimer Wolff & Donnelly LLP

ABSTRACT:

A system, method and article of manufacture are provided for implementing environment services patterns. First, a successfulness of an operation is tested, wherein the operation has pre-conditions and post-conditions that must be satisfied for the operation to be successful. Then, there is an attempt to detect an orphaned server context. A common interface is created for exception handling. Requirements for such exception handling are also recorded to maintain a consistent error handling approach. Incoming requests are distributed amongst server components for optimizing usage of resources. Finally, the amount of changes that need to be made to exception handling logic are minimized when new exceptions are added.

18 Claims, 195 Drawing figures

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw De

☐ 21. Document ID: US 6477580 B1

L7: Entry 21 of 28 File: USPT Nov 5, 2002

US-PAT-NO: 6477580
DOCUMENT-IDENTIFIER: US 6477580 B1

TITLE: Self-described stream in a communication services patterns environment

DATE-ISSUED: November 5, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bowman-Amuah; Michel K.	Colorado Springs	CO		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Accenture LLP	Palo Alto	CA			02

APPL-NO: 09/ 387070 [PALM]
DATE FILED: August 31, 1999

INT-CL: [07] G06 F 15/16

US-CL-ISSUED: 709/231; 709/236
US-CL-CURRENT: 709/231; 709/236

FIELD-OF-SEARCH: 709/200, 709/236, 709/231, 709/219, 340/82, 237/230

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
5301320	April 1994	McAttee et al.	395/650
5721908	February 1998	Lagarde et al.	395/610
5737607	April 1998	Hamilton et al.	395/701
5890133	March 1999	Ernst	705/7
5907704	May 1999	Gudmundson et al.	395/701
5920703	July 1999	Campbell et al.	395/200.66
5953707	September 1999	Huang et al.	705/10
6085198	July 2000	Skinner et al.	707/103
6092118	July 2000	Tsang	709/246
6289345	September 2001	Yasue	707/10
6295538	September 2001	Cooper et al.	707/104

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
WO 99/08208	February 1999	WO	

OTHER PUBLICATIONS

Microsoft Corporation, Microsoft Solutions Framework Overview A Quick Tour of the MSF Models , URL: http://channels.microsoft.com/enterprise/support/support/consult, Viewed Oct. 9, 1999.

ART-UNIT: 2153

PRIMARY-EXAMINER: Dinh; Dung C.

ASSISTANT-EXAMINER: Kupstas; Tod

ATTY-AGENT-FIRM: Oppenheimer Wolff & Donnelly LLP

ABSTRACT:

A system, method, and article of manufacture are described for providing a self-describing stream-based communication system. Messages are sent which include data between a sending system and a receiving system. Meta-data is attached to the messages being sent between the sending system and the receiving system. The data of the messages sent from the sending system to the receiving system is translated based on the meta-data. The meta-data includes first and second sections. The first section identifies a type of object associated with the data and a number of attribute descriptors in the data. The second section includes a series of the attribute descriptors defining elements of the data.

20 Claims, 195 Drawing figures

☐ 22. Document ID: US 6442748 B1

L7: Entry 22 of 28 File: USPT Aug 27, 2002

US-PAT-NO: 6442748
DOCUMENT-IDENTIFIER: US 6442748 B1

TITLE: System, method and article of manufacture for a persistent state and persistent object separator in an information services patterns environment

DATE-ISSUED: August 27, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bowman-Amuah; Michel K.	Colorado Springs	CO		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Accenture LLP	Palo Alto	CA			02

APPL-NO: 09/ 388911 [PALM]
DATE FILED: August 31, 1999

PARENT-CASE:
CROSS REFERENCE TO RELATED APPLICATIONS This application is related to U.S. patent applications entitled A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR A DEVELOPMENT ARCHITECTURE FRAMEWORK Ser. No. 09/387,747 and A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR MAINTENANCE AND ADMINISTRATION IN AN E-COMMERCE APPLICATION FRAMEWORK Ser. No. 09/387,318, both of which are filed Aug. 31, 1999 concurrently herewith and which are incorporated by reference in their entirety.

INT-CL: [07] G06 F 9/45

US-CL-ISSUED: 717/3; 709/316, 717/1, 707/103R, 707/104.1, 707/9
US-CL-CURRENT: 717/108; 707/103R, 707/104.1, 707/9, 719/316

FIELD-OF-SEARCH: 717/1, 717/2, 717/3, 707/13R-13Z, 707/9, 707/10, 707/104.1, 709/315, 709/225-226

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
5301320	April 1994	McAttee et al.	705/9
5715461	February 1998	Yoshitomi	717/10
5721908	February 1998	Lagarde et al.	707/10
5890133	March 1999	Ernst	705/7
5907704	May 1999	Gudmundson et al.	717/1
5953707	September 1999	Huang et al.	705/10
6088679	June 2000	Barkley	705/8
6088702	July 2000	Plantz et al.	707/103
6158007	December 2000	Morch et al.	713/201
6195795	February 2001	Block et al.	717/11
6212549	April 2001	Page et al.	709/205
6243706	June 2001	Moreau et al.	707/101
6256773	July 2001	Bowman-Amuah	717/1
6266683	July 2001	Yehuda et al.	707/512
6289382	September 2001	Bowman-Amuah	709/226

OTHER PUBLICATIONS

Keedy et al., Uniform Support for Collections of Objects in a Persistent Environment, 1989, IEEE, p. 26-35.*
Wileden et al., Pgraphite: An Experiment in Persistent Typed Object Management, 1988, ACM, p. 130-142.

ART-UNIT: 2122

PRIMARY-EXAMINER: Dam; Tuan Q.

ASSISTANT-EXAMINER: Chavis; John

ATTY-AGENT-FIRM: Burton; Daphne L. Oppenheimer Wolff & Donnelly LLP

ABSTRACT:

A system, method and article of manufacture are provided for separating logic and data access concerns during development of a persistent object for insulating development of business logic from development of data access routine. A persistent object being developed is accessed and a state of the persistent object is detached into a separate state class. The state class serves as a contract between a logic development team and a data access development team. Logic development is limited by the logic development team to developing business logic. Data access development is restricted by the data access development team to providing data creation, retrieval, updating, and deletion capabilities.

18 Claims, 195 Drawing figures

☐ 23. Document ID: US 6438594 B1

L7: Entry 23 of 28 File: USPT Aug 20, 2002

US-PAT-NO: 6438594
DOCUMENT-IDENTIFIER: US 6438594 B1

TITLE: Delivering service to a client via a locally addressable interface

DATE-ISSUED: August 20, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bowman-Amuah; Michel K.	Colorado Springs	CO		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Accenture LLP	Palo Alto	CA			02

APPL-NO: 09/ 387064 [PALM]
DATE FILED: August 31, 1999

PARENT-CASE:
CROSS REFERENCE TO RELATED APPLICATIONS This application is related to U.S. patent applications entitled A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR A DEVELOPMENT ARCHITECTURE FRAMEWORK and A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR MAINTENANCE AND ADMINISTRATION IN AN E-COMMERCE APPLICATION FRAMEWORK, both of which are filed concurrently herewith and which are incorporated by reference in their entirety.

INT-CL: [07] G06 F 15/173, G06 F 15/16

US-CL-ISSUED: 709/225; 709/217, 709/203, 709/250
US-CL-CURRENT: 709/225; 709/203, 709/217, 709/250

FIELD-OF-SEARCH: 709/219, 709/217, 709/201, 709/225, 709/203, 709/250

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
5301320	April 1994	McAttee et al.	
5475819	December 1995	Miller et al.	700/178
5721908	February 1998	Lagarde et al.	
5729689	March 1998	Allard et al.	707/10
5862331	January 1999	Herriot	709/219
5890133	March 1999	Ernst	
5907704	May 1999	Gudmundson et al.	
5946697	August 1999	Shen	707/104
5953707	September 1999	Huang et al.	
5968121	October 1999	Logan et al.	709/219
6081837	June 2000	Stedman et al.	709/219
6157940	December 2000	Marullo et al.	709/22
6167446	December 2000	Lister et al.	709/202
6223209	April 2001	Watson	709/201
6289382	September 2001	Bowman-Amuah	709/226

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
WO 99/08208	February 1999	WO	

OTHER PUBLICATIONS

Information Disclosure Statement regarding L. Keith Stephens (by Steven Lieske, executed on Nov. 27, 2001, filed with the PTO on Nov. 29, 2001).
Microsoft Corporation, Microsoft Solutions Framework Overview A Quick Tour of the MSF Models, URL: http://channels.microsoft.com/enterprise/support/support/consult, Viewed Oct. 9, 1999.

ART-UNIT: 2153

PRIMARY-EXAMINER: Lim; Krisna

ATTY-AGENT-FIRM: Oppenheimer Wolff & Donnelly LLP

ABSTRACT:

A system, method, and article of manufacture are provided for delivering service via a locally addressable interface. A plurality of globally addressable interfaces and a plurality of locally addressable interfaces are provided. Access is allowed to a plurality of different sets of services from each of the globally addressable

interfaces and the locally addressable interface. Each interface has a unique set of services associated therewith. The globally addressable interfaces are registered in a naming service for facilitating access thereto. Use of the locally addressable interfaces is permitted only via the globally addressable interfaces or another locally addressable interface.

15 Claims, 195 Drawing figures

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw D

☐ 24. Document ID: US 6434628 B1

L7: Entry 24 of 28 File: USPT Aug 13, 2002

US-PAT-NO: 6434628
DOCUMENT-IDENTIFIER: US 6434628 B1

TITLE: Common interface for handling exception interface name with additional prefix and suffix for handling exceptions in environment services patterns

DATE-ISSUED: August 13, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bowman-Amuah; Michel K.	Colorado Springs	CO		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Accenture LLP	Palo Alto	CA			02

APPL-NO: 09/ 386434 [PALM]
DATE FILED: August 31, 1999

PARENT-CASE:
CROSS REFERENCE TO RELATED APPLICATIONS This application is related to U.S. patent applications entitled "A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR A DEVELOPMENT ARCHITECTURE FRAMEWORK" (Ser. No. 09/387,747, filed on Aug. 31, 1999) and "A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR MAINTENANCE AND ADMINISTRATION IN AN E-COMMERCE APPLICATION FRAMEWORK" (Ser. No. 09/388,910 filed on Aug. 31, 1999), both of which are filed concurrently herewith and which are incorporated by reference in their entirety.

INT-CL: [07] G06 F 9/00

US-CL-ISSUED: 709/303; 714/1, 714/15, 714/48
US-CL-CURRENT: 714/48; 714/1, 714/15

FIELD-OF-SEARCH: 709/303, 709/224, 714/1, 714/15, 714/48

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
5301320	April 1994	McAttee et al.	
5721908	February 1998	Lagarde et al.	
5732270	March 1998	Foody et al.	709/303
5787413	July 1998	Kauffman et al.	707/2
5890133	March 1999	Ernst	
5907704	May 1999	Gudmundson et al.	
5953707	September 1999	Huang et al.	
5987514	November 1999	Rangarajan	709/224
6085198	July 2000	Skinner et al.	707/103
6182182	January 2001	Bradley et al.	710/129

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
WO 99/08208	February 1999	WO	

OTHER PUBLICATIONS

Microsoft Corporation, Microsoft Solutions Framework Overview A Quick Tour of the MSF Models, URL:http://channels.microsoft.com/enterprise/support/support/consult, Viewed Oct. 9, 1999.

ART-UNIT: 2153

PRIMARY-EXAMINER: Lim; Krisna

ATTY-AGENT-FIRM: Burton; Daphne L. Oppenheimer Wolff & Donnelly LLP

ABSTRACT:

A system, method and article of manufacture are provided for creating a common interface for exception handling. Naming conventions of exceptions are determined. A prefix and/or a suffix is added to each exception interface name for indicating that the exception interface is an exception. Where an exception error occurred is indicated and a determination is made as to what caused the exception error. Context is provided as to what was happening when the exception error occurred. Streaming of the exception is allowed to a common interface. An error message is outputted indicating that an exception error has occurred.

15 Claims, 195 Drawing figures

☐ 25. Document ID: US 6434568 B1

L7: Entry 25 of 28 File: USPT Aug 13, 2002

US-PAT-NO: 6434568
DOCUMENT-IDENTIFIER: US 6434568 B1

TITLE: Information services patterns in a netcentric environment

DATE-ISSUED: August 13, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bowman-Amuah; Michel K.	Colorado Springs	CO		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Accenture LLP	Palo Alto	CA			02

APPL-NO: 09/ 387071 [PALM]
DATE FILED: August 31, 1999

PARENT-CASE:
CROSS REFERENCE TO RELATED APPLICATIONS This application is related to U.S. patent application Ser. No. 09/387,747 entitled A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR A DEVELOPMENT ARCHITECTURE FRAMEWORK and U.S. patent application Ser. No. 09/387,318 A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR MAINTENANCE AND ADMINISTRATION IN AN E-COMMERCE APPLICATION FRAMEWORK, both of which are filed concurrently herewith and which are incorporated by reference in their entirety.

INT-CL: [07] G06 F 17/30

US-CL-ISSUED: 707/103; 707/10, 709/203
US-CL-CURRENT: 707/103R; 707/10, 709/203

FIELD-OF-SEARCH: 707/103, 707/10, 707/104, 707/7, 707/104.1, 705/7, 705/1, 395/701, 709/203, 709/300, 709/303

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
5301320	April 1994	McAttee et al.	395/650
5642511	June 1997	Chow et al.	395/701
5721908	February 1998	Lagarde et al.	395/610
5778368	July 1998	Hogan et al.	707/10
5890133	March 1999	Ernst	705/7
5907704	May 1999	Gudmundson et al.	395/701
5953707	September 1999	Huang et al.	705/10
6006230	December 1999	Ludwig et al.	707/10
6029174	February 2000	Sprenger et al.	707/103
6029177	February 2000	Sadiq et al.	707/201

ART-UNIT: 2177

PRIMARY-EXAMINER: Breene; John

ASSISTANT-EXAMINER: Robinson; Greta L.

ATTY-AGENT-FIRM: Burton; Daphne L. Oppenheimer Wolff & Donnelly LLP

ABSTRACT:

A system, method, and article of manufacture are provided for implementing information services patterns associated with a relational database management system in an object-oriented persistence architecture. An object attribute is translated to and from a database value utilizing a database. Data is controlled in the database utilizing a data retrieval mechanism encapsulated in a data handler. Data access to the database is then organized among a plurality of business entities utilizing a plurality of business objects. Multiple business objects are retrieved across a network in one access operation. Retrieved data is mapped into objects. Then a warning is provided upon retrieval of objects missing at least one attribute. The warning includes information on how to handle the at least one missing attribute.

18 Claims, 195 Drawing figures

☐ 26. Document ID: US 6339832 B1

L7: Entry 26 of 28 File: USPT Jan 15, 2002

US-PAT-NO: 6339832
DOCUMENT-IDENTIFIER: US 6339832 B1

TITLE: Exception response table in environment services patterns

DATE-ISSUED: January 15, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bowman-Amuah; Michel K.	Colorado Springs	CO		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Accenture LLP	Palo Alto	CA			02

APPL-NO: 09/ 387873 [PALM]
DATE FILED: August 31, 1999

INT-CL: [07] G06 F 11/00, G06 F 12/34

US-CL-ISSUED: 714/35; 714/50, 710/48, 710/266
US-CL-CURRENT: 714/35; 710/266, 710/48, 714/50

FIELD-OF-SEARCH: 714/34, 714/50, 714/35, 710/263-265, 710/266, 710/268, 710/48, 710/269

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
5463686	October 1995	Lebourges	379/220
5568644	October 1996	Neilson et al.	395/741
5675748	October 1997	Ross	395/284
5761513	June 1998	Yellin et al.	395/705
6052739	April 2000	Bopardikar et al.	709/301
6148361	November 2000	Carpenter et al.	710/200

ART-UNIT: 2131

PRIMARY-EXAMINER: Wright; Norman M.

ATTY-AGENT-FIRM: Oppenheimer Wolff & Donnelly, LLP

ABSTRACT:

A system, method and article of manufacture are provided for recording exception handling requirements for maintaining a consistent error handling approach. An exception response table is provided in which an exception is recorded. The context of the exception is entered in the exception response table and a response for the exception is listed in the exception response table. The response is subsequently outputted upon the exception occurring in the context.

18 Claims, 195 Drawing figures

☐ 27. Document ID: US 6332163 B1

L7: Entry 27 of 28 File: USPT Dec 18, 2001

US-PAT-NO: 6332163
DOCUMENT-IDENTIFIER: US 6332163 B1

TITLE: Method for providing communication services over a computer network system

DATE-ISSUED: December 18, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bowman-Amuah; Michel K.	Colorado Springs	CO		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Accenture, LLP	Palo Alto	CA			02

APPL-NO: 09/ 387642 [PALM]
DATE FILED: September 1, 1999

INT-CL: [07] G06 F 13/00

US-CL-ISSUED: 709/231; 709/217, 709/223, 709/227, 709/329
US-CL-CURRENT: 709/231; 709/217, 709/223, 709/227, 719/329

FIELD-OF-SEARCH: 709/102, 709/202, 709/203, 709/217, 709/218, 709/219, 709/223, 709/225, 709/227, 709/230, 709/231, 709/238, 709/329

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
5301320	April 1994	McAttee et al.	395/650
5457797	October 1995	Butterworth et al.	709/302
5721908	February 1998	Lagarde et al.	395/610
5764955	June 1998	Doolan	709/223
5867153	February 1999	Grandcolas et al.	345/326
5890133	March 1999	Ernst	705/7
5892909	April 1999	Grasso et al.	709/201
5907704	May 1999	Gudmundson et al.	395/701
5933816	August 1999	Zeannah et al.	705/35
5940075	August 1999	Mutschler, III et al.	345/335
5953707	September 1999	Huang et al.	705/10
6041365	March 2000	Kleinerman	709/302

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
WO 99/08208	February 1999	WO	

OTHER PUBLICATIONS

Microsoft Corporation, Microsoft Solutions Framework Overview A Quick Tour of the MSF Models, URL: http://channels. microsoft.com/enterprise/support/support/consult, Viewed Oct. 9, 1999.

ART-UNIT: 214

PRIMARY-EXAMINER: Vu; Viet D.

ATTY-AGENT-FIRM: Oppenheimer Wolff & Donnelly, LLP Howell; Stefanie M.

ABSTRACT:

A system, method and article of manufacture are provided for implementing communication services patterns. A fixed format stream-based communication system is provided and service is delivered via a globally addressable interface. Access is afforded to a legacy system. Service is delivered via a locally addressable interface. A null value is communicated and data is transmitted from a server to a client via pages. A naming service and a client are interfaced with the naming

service allowing access to a plurality of different sets of services from a plurality of globally addressable interfaces. A stream-based communication system is provided and data is efficiently retrieved.

15 Claims, 195 Drawing figures

☐ 28. Document ID: US 6289382 B1

L7: Entry 28 of 28 File: USPT Sep 11, 2001

US-PAT-NO: 6289382
DOCUMENT-IDENTIFIER: US 6289382 B1

TITLE: System, method and article of manufacture for a globally addressable interface in a communication services patterns environment

DATE-ISSUED: September 11, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bowman-Amuah; Michel K.	Colorado Springs	CO		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Andersen Consulting, LLP	Palo Alto	CA			02

APPL-NO: 09/ 387214 [PALM]
DATE FILED: August 31, 1999

PARENT-CASE:
CROSS REFERENCE TO RELATED APPLICATIONS This application is related to United States patent applications entitled A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR A DEVELOPMENT ARCHITECTURE FRAMEWORK, Ser. No. 09/386,619, still pending and A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR MAINTENANCE AND ADMINISTRATION IN AN E-COMMERCE APPLICATION FRAMEWORK, Ser. No. 09/386,618, still pending, both of which are filed concurrently herewith and which are incorporated by reference in their entirety.

INT-CL: [07] G06 F 13/00

US-CL-ISSUED: 709/226
US-CL-CURRENT: 709/226

FIELD-OF-SEARCH: 709/200, 709/203, 709/217, 709/218, 709/219, 709/220, 709/221, 709/222, 709/223, 709/226

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
5301320	April 1994	McAttee et al.	395/650
5475819	December 1995	Miller et al.	709/203
5721908	February 1998	Lagarde et al.	395/610
5819019	October 1998	Nelson	714/4
5890133	March 1999	Ernst	705/7
5907704	May 1999	Gudmundson et al.	395/701
5953707	September 1999	Huang et al.	705/10
6044379	March 2000	Callsen	707/103
6067634	May 2000	Nelson	714/4
6125383	September 2000	Glynias et al.	709/202

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
WO 99/08208	February 1999	WO	

OTHER PUBLICATIONS

Microsoft Corporation, Microsoft Solutions Framework Overview A Quick Tour of the MSF Models, URL: http://channels.microsoft.com/enterprise/support/support/consult, Viewed Oct. 9, 1999.

ART-UNIT: 277

PRIMARY-EXAMINER: Meky; Moustafa M.

ATTY-AGENT-FIRM: Oppenheimer Wolff & Donnelly, LLP

ABSTRACT:

A system, method, and article of manufacture are provided for delivering service via a globally addressable interface. A plurality of interfaces are provided with access allowed to a plurality of different sets of services from each of the interfaces. Each interface has a unique set of services associated therewith. Each of the interfaces is named with a name indicative of the unique set of services associated therewith. The names of the interfaces are then broadcast to a plurality of systems requiring service.

15 Claims, 195 Drawing figures

BROWSER	11190
BROWSERS	4493
APPLICATION	1874013
APPLICATIONS	949180
(6 AND (BROWSER NEAR WEB NEAR APPLICATION)).USPT.	28
(L6 AND (WEB NEAR BROWSER NEAR APPLICATION)).USPT.	28

Display Format: FRO Change Format

Previous Page Next Page Go to Doc#

L5: Entry 4 of 29 File: USPT Oct 28, 2003

DOCUMENT-IDENTIFIER: US 6640244 B1
TITLE: Request batcher in a transaction services patterns environment

Drawing Description Text (9):
FIG. 7 is a chart that can be utilized to determine whether to use Netcentric technology;

Drawing Description Text (12):
FIG. 10 illustrates the services of a Netcentric Architecture Framework in accordance with one embodiment of the present invention;

Drawing Description Text (13):
FIG. 11 is a detailed diagram of some of the components of the Netcentric Architecture Framework found in FIG. 10;

Drawing Description Text (14):
FIG. 12 is a detailed diagram of other components of the Netcentric Architecture Framework found in FIG. 10;

Drawing Description Text (15):
FIG. 13 illustrates several components of the Presentation area of the Netcentric Architecture Framework;

Drawing Description Text (28):
FIG. 26 illustrates several of the components of the Transaction areas of the Netcentric Architecture Framework;

Drawing Description Text (29):
FIG. 27 illustrates various components of the Environmental Services of the Netcentric Architecture Framework;

Drawing Description Text (30):
FIG. 28 illustrates the Base Services of the Netcentric Architecture Framework;

Drawing Description Text (35):
FIG. 33 depicts the various components of the Business Logic portion of the Netcentric Architecture Framework;

Detailed Description Text (101):
An architecture generation is a broad classification scheme for placing technology components within a technology era. Delivery Vehicles are physically implemented on a distinct architecture generation. Examples of architecture generations include host-based, client-server and netcentric.

Detailed Description Text (102):
Note: Defining a clear line between what falls under the client/server and a Netcentric technology generation is difficult; typically different people tend to have different opinions. Technologically, the Netcentric generation may be an evolution of the client/server generation. In the context of the Delivery Vehicles, the technology generation discussion may be intended to be a logical discussion

that aims to highlight the new business capabilities enabled by new technologies. So for example, there could be a PowerBuilder application executing from a Web Browser using a plug-in. Whether this is called a client/server or Netcentric application is up to the reader. When presenting technology architecture information to clients, focus on the business capabilities that are offered by technologies rather than just on definitions for what is client/server or what is Netcentric technology.

Detailed Description Text (108):
These core services may be implemented using one or several of the Technology Generations; currently Host, Client/Server or Netcentric. Most major enterprises have legacy systems that include both host based and distributed client/server applications. Netcentric applications may extend the mix of system technologies. 2. On the top left of the cube are the technology components 510 that are required to support a distinct delivery vehicle.

Detailed Description Text (133):
This implies that most applications should ideally be based on a Netcentric Architecture, rather than on a traditional client/server or a host-based architecture.

Detailed Description Text (135):
When deciding whether to employ a Netcentric solution, i.e. incorporating Web-based user interfaces and Internet application styles, keep in mind that these technologies are not a panacea and should be used only when there is solid business reason. They require new investments in skills, tools, development and operations processes. Due to the relative immaturity of tools and products, they also represent additional risks both in technical terms, such as performance and reliability, and in strategic terms, such as vendor and product quality and stability.

Detailed Description Text (136):
Regardless today each project should always consider the prospect of utilizing Netcentric technologies. It is important to evaluate whether the application can benefit from a Netcentric style implementation immediately or in the future.

Detailed Description Text (137):
Even if a traditional client/server approach (e.g. using Visual Basic or PowerBuilder) is decided upon, the use of Netcentric concepts to produce significant reductions in software packaging and distribution costs should be considered. Such concepts include three- or multi-tier architectures with more business logic residing on server, flexible security architecture, and user interface concepts that can be ported to a Web Browser at a later stage.

Detailed Description Text (138):
A Netcentric architecture will usually still support development of client/server applications. The opposite is not often true since traditional client/server systems usually keep a substantial portion of the business logic on a fat client, while Netcentric architectures still favor keeping most business logic at the server side. Also Netcentric architectures tend to be more loosely coupled than (the still dominant two-tier) client/server systems.

Detailed Description Text (139):
The following sections identify the main characteristics associated with a Netcentric, Client Server or Host based technology generation. This list should in no way be considered complete and exhaustive but is included as a starting point from which the identification process may begin.

Detailed Description Text (141):
If, based upon one's client's requirements, most of the statements in FIG. 7 are

true, one should consider an application based upon the Netcentric technology generation.

Detailed Description Text (143):
Existing Architecture and Infrastructure 700 E1. Other Netcentric applications been developed and placed in production. The user community is often less resistant to accept the use of new technology to address changing business drivers if they are not completely unfamiliar with the characteristics of the technology. If an application based on a Netcentric architecture has already been successfully piloted or deployed, acceptance of additional systems will be eased. E2. The client has significant technology skills within its IT department. This is especially important if the client plans on developing or operating the application themselves. A significant investment in training and changes to internal organizations may be necessary for successful deployment of this type of system. The client must have a culture that supports change. Some organizations are very conservative and strong, making it difficult to deliver a successful project using new technology. E3. The client has multiple hardware/operating system configurations for their client machines. In traditional client/server environments, distributing an application internally or externally for an enterprise requires that the application be ported, recompiled and tested for all specific workstation operating systems. Use of a Universal Client or web-browser may eliminate many of these problems by providing a consistent and familiar user interface on many different operating systems and hardware platforms. E4. The application will run on a device other than a PC. The momentum of the Internet is putting a lot of pressure on vendors of various devices to be web-enabled. Having the Internet infrastructure in place makes it more feasible for vendors to create new physical devices from which electronic information can be accessed. For example, Web televisions are gaining momentum. Now users can access the Internet from a television set. Network Computers, thin-client devices that download and run applications from a centrally maintained server are generating a lot of interest. Also, users want to have access to the same information from multiple physical devices. For example, a user might want to have access to his/her e-mail from a cellular phone, from a Web TV or their portable PC. E5. The current legacy systems can scale to serve a potentially large new audience. Expanding the user community of a legacy host or client/server system by including an audience which is external to the company can result in dramatic increases in system usage. The additional demand and increased usage placed on existing legacy systems is often difficult to estimate or predict. Analysis must be conducted to ensure existing legacy systems and infrastructure can absorb this increase.

Detailed Description Text (144):
Business Imperatives 702 B1. The client needs to reach a new external audience with this application. This is probably the main reason for selecting a Netcentric architecture. Through appropriate use of a Netcentric architecture it is often possible to gain exposure to new customers and markets. The client can often achieve significant competitive advantage by providing new services and products to its customers. Also this new channel makes it technically possible to develop a new generation of "market-of-one" products, where each customer can repeatedly and easy customize a product according to own preferences. B2. The client needs to reach a large or diverse internal audience with this application. Configuration management of traditional client/server applications, which tend to be physically distributed across both the client and server, is a major issue for many corporations. The software distribution of such applications which are packaged as one large or a combination of a few large executables makes minor updates difficult for even a small scale user population. Every time an update is made, a process must be initiated to distribute new code to all client machines. The browser-centric application style offers an alternative to this traditional problem of distributing functionality to both internal and external users.

Detailed Description Text (145):

IT Guiding Principles 704 G1. The client is an early adopter of new technology. Implementation of a Netcentric architecture can help the client realize a number of business benefits. However, the introduction of new technology into an organization does have inherent risks and can result in a significant amount of change. The client should have a culture which can embrace these necessary changes. G2. Applications should be developed to handle non-dedicated or occasional users. Non-expert users need a simple to use and familiar interface in order to be able to use the application. As people grow accustomed to Web-browsers, this will be their preferred user-interface. The consistent interface provided by the Web-browsers will help reduce the learning curve necessary for becoming familiar with new applications. G3. Where appropriate, applications should be developed with multi-media capabilities for the presentation of data (text, sound, video, etc.). The ability to digitize, organize, and deliver textual, graphical and other information (e.g., video, audio, etc.) in addition to traditional data to a broader audience, enables new methods for people and enterprises to work together. Netcentric technologies (e.g., HTML documents, plug-ins, Java, etc.) and standardization of media information formats enable support for these types of complex documents and applications. Network bandwidth remains a performance issue. However advances in network technologies and compression techniques continue to make richer media-enabled documents and applications more feasible on the Web. G4. The Execution, Operation and Development architectures will be designed to support frequent releases of enhancements/modifications to production applications. It is imperative that companies in the current market place be able to quickly modify their business processes in order to address changes in the industry. A Netcentric architecture simplifies frequent software releases for both internal and external users of the systems.

Detailed Description Text (157):
IP Guiding Principles 904 G1. The Client has the resources, organizations and processes necessary for the development and operation of a Host based application. Before a Host based application is developed, it is important that the client identify how a system of this type will fit within the company's strategic technology plan. G2. Reliance upon a single vendor (IBM) for technology solutions is acceptable. Selection of a host based architecture inherently locks the client into dependence upon one vendor for its technology solutions. While IBM is a reputable, stable company it may be important to ensure that the client's long term business strategy will be supported by IBM's technology vision and direction. G3. Centralized application and data is an acceptable strategy. A pure host based architecture eliminates the possibility of distributing data or business logic to the client. This removes some of the application performance benefits which can be seen by a distribution strategy, however, centralized access to the business logic and business data can improve operational stability and lower costs. A current trend is to transform mainframe based legacy systems into data- and application servers in a multi-tiered client/server or Netcentric architecture.

Detailed Description Text (162):
SAF provides access to the user's thought leadership and architecture frameworks for Execution, Development and Operations environments. Very briefly, SAF covers: The Core Execution Architecture frameworks for the different architecture generations (Host, Client/Server and Netcentric). Most users will primarily use the Netcentric framework. The Execution Architecture Extensions. This is a collection of the most common delivery vehicles that are built for clients. These frameworks extend the core frameworks with services specific for a particular delivery vehicle. The Development Architecture Framework. Should help one establish and operate a high-quality development environment. The Operations Architecture Framework. Should help one establish and operate a high-quality operations environment. To learn more about what Delivery Vehicles are, see the Delivery Vehicle Overview section. This page explains the relationships between Architecture Generations, Application Styles and Environments.

Detailed Description Text (168):
Most implementations today may begin by considering the Netcentric Execution framework, then adding extensions for the delivery vehicles or specific technologies that your project will use. Keep in mind, however, the Development and Operations frameworks. Also, remember that some architectures will need to be built on multiple frameworks, most likely involving the Integration framework to bridge between them.

Detailed Description Text (170):
Netcentric

Detailed Description Text (172):
This framework constitutes the core of a modern netcentric and client/server execution architecture. It will help one plan and design one's architecture by understanding what components a typical netcentric architecture should consist of.

Detailed Description Text (173):
NETCENTRIC ARCHITECTURE FRAMEWORK

Detailed Description Text (176):
The Netcentric Architecture Framework identifies those run-time services required when an application executes in a Netcentric environment. As shown in FIG. 10, the services can be broken down into logical areas: Presentation Services 1000, Information Services 1002,1004, Communication Services 1006,1008, Communication Fabric Services 1010, Transaction Services 1012,1014, Environment Services 1016,1018, Base Services 1020 and Business Logic 1022,1024. This framework is an evolution of the Client Server New Age Systems Framework and is useful for technical architects involved in the selection, development and deployment of technical architectures in a Netcentric environment. More discussion of each of these logical areas is provided below. See also FIGS. 11 and 12, which are detailed diagrams of the components of the Netcentric Architecture Framework found in FIG. 10.

Detailed Description Text (177):
Netcentric Computing Top 10 Points Netcentric computing represents an evolution--it builds on and extends, rather than replaces, client/server. Netcentric computing has a greater impact on the entire business enterprise, hence greater opportunity and risk. Definitions of Netcentric may vary. One is about reach and content. Netcentric is not just electronic commerce; it can impact enterprises internally as well. You can begin identifying Netcentric opportunities for clients today. There are three basic types of Netcentric applications: advertise; inquiry; and fully interactive. One can underestimate the impact of Netcentric on infrastructure requirements. Build today's client/server engagements with flexibility to extend to Netcentric.

Detailed Description Text (178):
Netcentric Computing Definition:

Detailed Description Text (179):
Netcentric Computing also called Netcentric Architecture, Netcentric Technology, etc. is an emerging architecture style which expands the reach of computing both within and outside the enterprise. Netcentric enables sharing of data and content between individuals and applications. These applications provide capabilities to publish, interact or transact. Netcentric represents an evolution of Client/Server which may utilize internet technologies to connect employees, customers, and business partners.

Detailed Description Text (180):
Client/Server vs. Netcentric Computing (NCC)

Detailed Description Text (184):
Similarly to traditional client/server architectures, Netcentric architectures support a style of computing where processes on different machines communicate using messages. In this style, "client" processes delegate business functions or other tasks (such as data manipulation logic) to one or more server processes. Server processes respond to messages from clients.

Detailed Description Text (186):
A key design decision for a client/server system is whether it should be two-tiered or multi-tiered and how business logic is distributed across the tiers. In Netcentric architectures there is a tendency to move more business logic to the server tiers, although "fatter" clients are becoming more popular with newer technologies such as Java and ActiveX.

Detailed Description Text (196):
A three-tiered architecture is often enhanced by the integration of distributed transaction processing middleware. This model of computing is often termed the "enhanced" client/server model. Most Netcentric architectures use a three- or four tiered approach with a web server and potentially a separate application server layer.

Detailed Description Text (197):
In the enhanced client/server model, all presentation and control logic resides on the client, all application logic resides on multiple back-end application servers, and all data management logic resides on multiple back-end database servers.

Detailed Description Text (199):
In contrast to mainframe and two-tiered client/server computing models, the principle advantage with a three-tiered enhanced client/server architecture is that it provides the benefits of a GUI application, but also provides a level of integrity and reliability found in mainframe centralized computing. That is, it will evolve to serve high-volume, high-integrity, and high-availability environments. Location and implementation transparency--The use of a transaction manager such as Tuxedo allows for service location independence. Distribution of logic to optimal resource--Since the application and database functions reside on their own physical devices, each can be optimally tuned for the work they perform. Database scaleable on throughput--In the enhanced three-tiered client/server model, client applications no longer connect directly to database servers. Instead, only application servers connect to the database servers. Security over service resources--With the application logic residing on back-end application servers, security over the applications is made possible at various levels. Redundancy and resiliency of services--A major disadvantage prominent in other models of computing is "single point of failure Optimization of personnel resources--Developers can be utilized for specific talents in each tier. Allows for asynchronous and standardized messaging--The enhanced client/server model is really a superset of the RPC-based function shipping model which provides features such as asynchronous, event-driven programming. Administration, configuration, prioritization--The use of a transaction manager enables servers to be added, removed, or restarted dynamically. This allows for very robust, scaleable, and flexible applications.

Detailed Description Text (204):
Presentation Services enable an application to manage the human-computer interface. This includes capturing user actions and generating resulting events, presenting data to the user, and assisting in the management of the dialog flow of processing. FIG. 13 illustrates several components of the Presentation area of the Netcentric Architecture Framework.

Detailed Description Text (225):
In addition to the traditional tools (e.g., Visual C++, Visual Basic, PowerBuilder), Netcentric technologies have introduced new tools that can be used

to develop Forms. For example, a developer can use Symantec Visual Cafe to create a Java application that will execute directly on the users desktop without any interaction with a browser.

Detailed Description Text (226):
Today most Netcentric applications are Web based and are launched from the Web browser. Additionally, one is now beginning to see other types of Netcentric solutions. For example, PointCast is a Netcentric application located on the users machine; it relies on the Internet to deliver stock prices, news headings, sports updates, etc. to the user. However, it is not launched from the Web browser--it is its own application. In the future there will be more Netcentric applications that use this approach for delivering information.

Detailed Description Text (336):
Printing services must take into consideration varying print scenarios common in Netcentric environments, including: varying graphics/file types (Adobe .PDF, .GIF, .JPEG), page margins and breaks, HTML constructs including tables and frames, headers/titles, extended character set support, etc.

Detailed Description Text (353):
A product should support the most widely used PC file formats and Client/Server databases. It may be necessary to consider the type of support. For example, native database interfaces tend to have better performance than open standards such as ODBC. Another possible consideration is how well the product accesses multiple files or databases. (source is market research)

Detailed Description Text (371):
Many of the Netcentric applications are broadcast-type applications, designed to market products and/or publish policies and procedures. Furthermore, there is now a growth of Netcentric applications that are transaction-type applications used to process a customers sales order, maintenance request, etc. Typically these type of applications require integration with a database manager. Database Services include: Storage Services, Indexing Services, Security Services, Access Services, and Replication/Synchronization Services

Detailed Description Text (429):
Netcentric applications that are executed from a browser are particularly well suited for serving up document style information. If the Web application consists of more than just a few HTML documents, integration with a document management system should be considered. Document Services include: Storage Services, Indexing Services, Security Services, Access Services, Replication/Synchronization Services, and Versioning Services

Detailed Description Text (469):
The simplified interface associated with communications middleware can help to reduce the complexity of developing Netcentric applications. The simplified interface helps reduce the development complexity by insulating the business applications from the network protocols. Because of this, application developers do not need to understand the intricacies and somewhat cryptic APIs associated with network transport protocols.

Detailed Description Text (512):
The following are examples of Terminal services: Telnet--a simple and widely used terminal emulation protocol that is part of the TCP/IP communications protocol. Telnet operates establishing a TCP connection with the remotely located login server, minicomputer or mainframe. The client's keyboard strokes are sent to the remote machine while the remote machine sends back the characters displayed on the local terminal screen. 3270 emulation--emulation of the 3270 protocol that is used by IBM mainframe terminals. tn3270--a Telnet program that includes the 3270 protocol for logging onto IBM mainframes; part of the TCP/IP protocol suite. X

Window System--allows users to simultaneously access applications on one or more UNIX servers and display results in multiple windows on a local display. Recent enhancements to XWS include integration with the Web and optimization of network traffic (caching, compression, etc.). Remote control--While terminal emulation is typically used in host-based environments, remote control is a sophisticated type of client/server Terminal service. Remote control allows a client computer to control the processing on a remote desktop computer. The GUI on the client computer looks as if it is the GUI on the remote desktop. This makes it appear as if the remote applications are running on the client. rlogin--a remote terminal service implemented under BSD UNIX. The concept behind rlogin is that it supports "trusted" hosts. This is accomplished by having a set of machines that share common file access rights and logins. The user controls access by authorizing remote login based on a remote host and remote user name.

Detailed Description Text (658):
Storage of data in a database allows for more optimal future growth since databases scale better than mechanisms such as flat files.

Detailed Description Text (720):
Legacy systems hold critical data which must be accessible by new Netcentric computing solutions. These legacy data sources often must be accessed in their current form so as to not disrupt the legacy systems.

Detailed Description Text (726):
Stronghold was the first web server to support SSL Client Authentication. Regular expression-based matching of client certificate information to determine access control is possible. Stronghold also has an API for certificate to username mapping so that client certificates may be mapped to standard usernames. CA certificates from both Thawte and Verisign can be utilized. Uncompromised, full 128-bit symmetric encryption is provided in all versions. This provides Netcentric systems used outside of the USA or Canada with secure encryption capabilities.

Detailed Description Text (837):
FIG. 26 illustrates several of the components of the Transaction areas of the Netcentric Architecture Framework, each of which will be discussed in more detail below.

Detailed Description Text (872):
Transaction Services are typically used in three-tier and multi-tier architectures. Particularly in Netcentric environments, applications might need to support getting and providing access to multiple back-end services, across enterprises, as part of a single transaction or user activity. This can be especially challenging if the user does not own some or all of the back-end services and/or data that its application relies on.

Detailed Description Text (913):
Must the System Support Logical Transactions That Occur Across Heterogenous Application Servers and Databases?

Detailed Description Text (917):
FIG. 27 illustrates various components of the Environmental Services of the Netcentric Architecture Framework. Environment Services provide miscellaneous application and system level services that do not deal directly with managing the user-interface, communicating to other programs, or accessing data.

Detailed Description Text (937):
All MS Windows based application maintain their own profile file (XXXXXXXX.INI) that is used during application startup, execution, and shutdown. This is a flat text file that contains information that can be used by the application during various phases of execution. For example, if an application needs to connect to a

database engine/server, it needs to know, during startup, various information like--database name, the server name, login ID, etc. Instead of hard coding all these information in the application executable, this information can be stored in the profile file for flexibility. In the future, if the database server name should change, this change only needs to be entered in the applications profile file.

Detailed Description Text (954):
In the Netcentric environment, application security becomes a more critical component primarily because there are more types of users (e.g., employees, customers) and additional types of transactions (e.g., e-commerce, help-desks). In traditional client/server environments most users are employees of the company. In Netcentric environments there are typically also external users (e.g., vendors, registered users) and the general public. Usually, different types of users have different application security requirements limiting what data they can see and what functions they can execute. Also, new types of transactions such as verifying credit when doing e-commerce transactions also require additional application security services.

Detailed Description Text (964):
In a Netcentric environment, errors are rarely logged on the client machine (one exception may be for an intranet type application).

Detailed Description Text (969):
Advances in Netcentric technologies now offer additional options for implementing state management on both the client and server machines.

Detailed Description Text (980):
Code/decode information can be stored at any layer of an n-tier architecture--client, application server, or database. The decision will need to be based upon codes table size and number, information update frequency, and write-access to the client machine or device.

Detailed Description Text (1014):
FIG. 28 illustrates the Base Services of the Netcentric Architecture Framework. Base Services provide server-based support for delivering applications to a wide variety of users over the Internet, intranet, and extranet. The information about these services in the Netcentric framework may be limited based on the least common denominator. For more detailed information about these components refer also to the following frameworks in SAF and/or DAF.

Detailed Description Text (1018):
Web Server Services enable organizations to manage and publish information and deploy Netcentric applications over the Internet and intranet environments. These services support the following: Managing documents in most formats such as HTML, Microsoft Word, etc. Handling of client requests for HTML pages. A Web browser initiates an HTTP request to the Web server either specifying the HTML document to send back to the browser or the server program (e.g., CGI, ASP) to execute. If the server program is specified, the Web server executes the program which generally returns a formatted HTML page to the Web Server. The Web server then passes this HTML page just as it would any standard HTML document back to the Web browser. Processing scripts such as Common Gateway Interface (CGI), Active Server Pages (ASP). Server side scripting enables programs or commands to be executed on the server machine providing access to resources stored both inside and outside of the Web server environment. For example, server side scripts can be used to process requests for additional information, such as data from an RDBMS. Caching Web pages. The first time a user requests, a Web page, the Web server retrieves that page from the network and stores it temporarily in a cache (memory on the Web server). When another page or the same page is requested, the Web server first checks to see if the page is available in the cache. If the page is available, then the Web server retrieves it from the cache, otherwise it retrieves it from the network. Clearly,

the Web server can retrieve the page from the cache more quickly than retrieving the page again from its location out on the network. The Web server typically provides an option to verify whether the page has been updated since the time it was placed in the cache, and if it has to get the latest update.

Detailed Description Text (1020):
Netscape Enterprise Web Server; Microsoft Internet Information Server (IIS); Oracle WebServer

Detailed Description Text (1021):
The following are relevant products for providing or implementing HTFP Web Server Services: Netscape Enterprise Web Server An enterprise-strength Web server that enables organizations to manage and publish their information and deploy Netcentric applications. Netscape Enterprise Web Server is built on open Internet standards that enable information and applications to scale easily. Supports S-HTTP, Java, and SNMP. Microsoft Internet Information Server (IIS) A free add-on product for NT Server that implements basic HTTP services. Future versions of NT Server (4.0 and beyond) will have HTTP features built directly into the operating system. Oracle WebServer A multi-threaded HTTP server that provides integrated features for translating and dispatching client HTTP requests directly to the Oracle7 Server using PL/SQL.

Detailed Description Text (1029):
Batch application programs can include business processing such payroll, billing, etc. and can also include report generation. This is an often overlooked area in client/server architectures. Traditional client/server solutions and Netcentric solutions often require batch processing, but unlike the mainframe, the typical platforms and development environments used often do not have built-in batch or reporting architecture facilities.

Detailed Description Text (1120):
The execution architecture services are all generalized services designed to support the applications Business Logic. How Business Logic is to be organized is not within the scope of the execution architecture and must be determined based upon the characteristics of the application system to be developed. This section is intended to serve as a reminder of the importance of consciously designing a structure for Business Logic which helps to isolate the impacts of change, and to point out that the underlying Netcentric architecture is particularly well suited for enabling the packaging of Business Logic as components.

Detailed Description Text (1121):
Business Logic is the core of any application, providing the expression of business rules and procedures (e.g., the steps and rules that govern how a sales order is fulfilled). As such, the Business Logic includes the control structure that specifies the flow for processing business events and user requests. There are many ways in which to organize Business Logic, including: rules-based, object-oriented, components, structured programming, etc. however each of these techniques include, although perhaps not by name, the concepts of: Interface, Application Logic, and Data Abstraction. FIG. 33 depicts the various components of the Business Logic portion of the Netcentric Architecture Framework.

Detailed Description Text (1155):
More and more, users are asking for assistance to deploy Netcentric eCommerce applications based on components. These applications are frequently based on object-oriented languages like Java, Visual Basic and C++.

Detailed Description Text (1162):
Many of these considerations have been addressed over the last few years. Most published literature continues to focus on narrow technology issues, such as programming techniques or generic methodologies, such as analysis and design

approaches or notation. Still, a growing number of publications and vendor strategies attack the enterprise needs within on-line netcentric execution models. Real-world, client solutions involve making pragmatic decisions, in which compromise occurs at the intersection of the four major OO themes. Experience with many component client projects in diverse industries uniquely positions a user to effectively address these complexities.

Detailed Description Text (1166):
Netcentric Patterns Overview

Detailed Description Text (1167):
Netcentric Patterns Focus on Application Frameworks

Detailed Description Text (1168):
Netcentric Patterns focus on how to design and leverage application frameworks, which are pieces of reusable application architecture that provide a highly configurable, flexible and maintainable system. They are aligned with SAF and/or DAF service layers. Alignment with SAF and/or DAF makes the patterns easier to grasp the context for which they are solving problems.

Detailed Description Text (1170):
For a high-level description of the context for the patterns within a service layer of SAF and/or DAF, click the title of the section. Please refer to the SAF and/or DAF for more detailed descriptions of the service layers. From the Frameworks Main Page, under Framework Extensions, the "Component Technology Extension" describes, in the context of the Netcentric Architecture framework, the additional, specialized, architecture services that are required when building a system using component technologies.

Detailed Description Text (1307):
There are many frameworks within the Java programming environment. For example, Java Security, a very important topic in new netcentric architectures, provides a Java Security Framework. This is a plug and play framework that allows developers the option of plugging in a security provider of their choice (DES, RSA, etc) or developing a custom security solution that can be called by security clients. To create a new security provider, the developer must only implement the required interfaces for the framework and provide a well-known name. Once these requirements are met, the component can be plugged into the framework.

Detailed Description Text (2087):
In an option, the use of the locally addressable interfaces may be facilitated by structured-based communication. As another option, the access may be allowed via a customer interface proxy, a customer server and a database of the globally addressable interface.

Detailed Description Text (2088):
In one embodiment, a request may be received by the customer interface proxy for a reference to one of the locally addressable interfaces. The request may then be forwarded across a network to the database of a server of the globally addressable interface. Also, data from the database may be returned in response to the request. Additionally, an object may be instantiated and populated it with the data by the server of the globally addressable interface. The object may also be associated with one of the locally addressable interfaces. Also, the locally addressable interface may be forwarded to the globally addressable interface. As even a further option, a reference may be forwarded to the locally addressable interface across the network and to the customer interface proxy. In addition, the use of the customer interface proxy may be also used to access the locally addressable interface across the network.

Detailed Description Text (2143):

FIG. 95 illustrates a flowchart for a method 9500 for transmitting data from a server to a client via pages. In operation 9502, pages of data sets are built from data in a database of a server. Upon receipt of a first request from a client for the data in the database of the server in operation 9504, a first one of the pages of the data sets is sent to the client over a network in response to the first request in operation 9506. When a second request from the client for the data in the database of the server is received in operation 9508, a second one of the pages of the data sets is then transmitted to the client over the network in response to the second request in operation 9510.

Detailed Description Text (2164):
The Last Found Key is used to request subsequent pages of data from the Server and the database. The "last found key" defines the starting point for the next data request. The Server will begin searching for data at the "last found key" and continue until it has retrieved a full "page" of information.

Detailed Description Text (2165):
When all of the data has been retrieved from the Server and Database, the Last Found Key is left blank. This notifies the Client that all the data has been sent.

Detailed Description Text (2577):
In the more common situation where the persistent storage is a relational database, there is a fundamental translation problem or a so-called "impedance mismatch". The physical, logical, and even philosophical differences between a relational and object data storage approach are significant. Mapping between the two is hard. The architecture must, in this case, include mechanisms to deal with this impedance mismatch.

Detailed Description Text (2625):
Within the Rapid Batch Persist Service, objects save and load themselves by writing to or reading from a Persistence Stream. This is undertaken via the base class (TiPersist) with specialized streaming code created via the Creation Code Generator. As a result domain objects are only "aware" of how to stream themselves, and not how the data storage mechanism works.

Detailed Description Text (2833):
A Request Batcher 18700 object will group logically-related requests. All requests will register with this coordinating object, rather than sending themselves immediately and independently to their server or database. The batcher will then store these requests together, until told to send them as a unit. This batching applies equally well to update and retrieval transactions.

Print Selection

Clear Cancel Print Print First Page

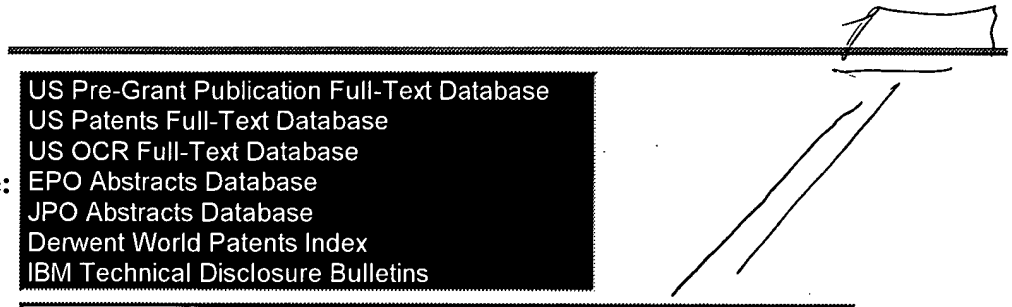
Section: Page(s): Print Copy: 1

Select?	Document ID	Section(s)	Page(s)	# Pages to print	Database
☑	6640249	all	all	* 280	PGPB,USPT,USOC,EPAB,JPAB,DWPI
☑	6640244	all	all	* 281	PGPB,USPT,USOC,EPAB,JPAB,DWPI
☑	6640238	all	all	* 285	PGPB,USPT,USOC,EPAB,JPAB,DWPI
☑	6615199	all	all	* 282	PGPB,USPT,USOC,EPAB,JPAB,DWPI
☑	6549949	all	all	* 276	PGPB,USPT,USOC,EPAB,JPAB,DWPI
☑	6539396	all	all	* 282	PGPB,USPT,USOC,EPAB,JPAB,DWPI
☑	6529948	all	all	* 281	PGPB,USPT,USOC,EPAB,JPAB,DWPI
☑	6438594	all	all	* 287	PGPB,USPT,USOC,EPAB,JPAB,DWPI

Note: Print requests for more than **49** pages are denoted by '*' and are in red.

Building	Room	Printer
cpk2	6r04	gbkgptr

Freeform Search



Database: US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Term: L4 and (client near server)

Display: 50 **Documents in Display Format:** - **Starting with Number** 1

Generate: ○ **Hit List** ◉ **Hit Count** ○ **Side by Side** ○ **Image**

Search Clear Interrupt

Search History

DATE: Wednesday, May 12, 2004 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT; PLUR=YES; OP=OR			
L8	L6 and (web near browser)	31	L8
L7	L6 and (web near browser near application)	28	L7
DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR			
L6	L4 and (client near server)	39	L6
L5	L4 and netcentric	29	L5
L4	L3 and (webserver$)	40	L4
L3	L2 and (client near computer$)	941	L3
L2	L1 and (data near storage$)	4231	L2
L1	database near server$	17184	L1

END OF SEARCH HISTORY

Terms used
database server and **client computer** and **webserver** and **netcentric**

Found **23,436** of **132,857**

Sort results by: relevance

Display results: expanded form

Save results to a Binder

Search Tips

Open results in a new window

Try an Advanced Search

Try this search in The ACM Guide

Results 1 - 20 of 200 Result page: 1 2 3 4 5 6 7 8 9 10 next

Best 200 shown

Relevance scale

1 Can GRID services provide answers to the challenges of national health information sharing?

I. Bilykh, Y. Bychkov, D. Dahlem, J. H. Jahnke, G. McCallum, C. Obry, A. Onabajo, C. Kuziemsky

October 2003 **Proceedings of the 2003 conference of the Centre for Advanced Studies conference on Collaborative research**

Full text available: pdf(964.34 KB) Additional Information: full citation, abstract, references, index terms

It has been widely recognized that one of the keys to cost reduction and service improvement in national health care lies in the integration of medical information system. Integration of information can not only improve care delivery today, but it can also help build research bases to enhance future care delivery. The question is how to achieve such integration? Imposing a single client software solution or common clinical terminology does not appear likely to happen. That lack of single softwar ...

2 Protecting web servers from distributed denial of service attacks

Frank Kargl, Joern Maier, Michael Weber

April 2001 **Proceedings of the tenth international conference on World Wide Web**

Full text available: pdf(390.23 KB) Additional Information: full citation, references, citings, index terms

Keywords: DDoS, Linux, class based routing, distributed denial of service attacks, web server security

3 The state of the art in locally distributed Web-server systems

Valeria Cardellini, Emiliano Casalicchio, Michele Colajanni, Philip S. Yu

June 2002 **ACM Computing Surveys (CSUR)**, Volume 34 Issue 2

Full text available: pdf(1.41 MB) Additional Information: full citation, abstract, references, citings, index terms

The overall increase in traffic on the World Wide Web is augmenting user-perceived response times from popular Web sites, especially in conjunction with special events. System platforms that do not replicate information content cannot provide the needed scalability to handle large traffic volumes and to match rapid and dramatic changes in the number of clients. The need to improve the performance of Web-based services has

produced a variety of novel content delivery architectures. This article w ...

Keywords: Client/server, World Wide Web, cluster-based architectures, dispatching algorithms, distributed systems, load balancing, routing mechanisms

4 Session 2: WebCAME: a light-weight modular client/server multiresolution rendering system

Markus Grabner

March 2003 **Proceeding of the eighth international conference on 3D web technology**

Full text available: pdf(3.37 MB) Additional Information: full citation, abstract, references

We introduce WebCAME, a client/server multiresolution rendering system for progressive transmission and visualization of compressed non-manifold triangle meshes with texture and color. The tool is implemented as a web browser plugin built upon standard components such as Qt, OpenGL, and ODBC. By utilizing and extending recently developed multiresolution techniques, it can provide view-dependent access to huge 3D data sets. With a size of less than 250kB it is small enough to be downloaded and in ...

5 Design and realization of an interactive multimedia server in education

K. Coninx, B. Daems, F. Van Reeth, E. Flerackers

June 1997 **ACM SIGCSE Bulletin , Proceedings of the 2nd conference on Integrating technology into computer science education**, Volume 29 Issue 3

Full text available: pdf(663.09 KB) Additional Information: full citation, abstract, references, index terms

The European project ELECTRA is concerned with the introduction of multimedia / telematics support to enhance the accessibility (local, regional and international) of learning material and to promote collaborative work. For the purpose of this paper we concentrate on two workpackages in the Limburg University Centre. The Interactive Multimedia Server workpackage focuses on the design of a generic platform for the integration of different types of information related to the learning process. Spec ...

6 Fast detection of communication patterns in distributed executions

Thomas Kunz, Michiel F. H. Seuren

November 1997 **Proceedings of the 1997 conference of the Centre for Advanced Studies on Collaborative research**

Full text available: pdf(4.21 MB) Additional Information: full citation, abstract, references, index terms

Understanding distributed applications is a tedious and difficult task. Visualizations based on process-time diagrams are often used to obtain a better understanding of the execution of the application. The visualization tool we use is Poet, an event tracer developed at the University of Waterloo. However, these diagrams are often very complex and do not provide the user with the desired overview of the application. In our experience, such tools display repeated occurrences of non-trivial commun ...

7 A database driven server for an Internet based plant layout presentation system

Jürgen Gausemeier, Holger Krumm, Thorsten Molt, Peter Ebbesmeyer, Peter Gehrmann

February 2000 **Proceedings of the fifth symposium on Virtual reality modeling language (Web3D-VRML)**

Full text available: pdf(382.29 KB) Additional Information: full citation, abstract, references, index terms

The work presented in this paper is part of a Virtual Reality Research Project of the Heinz Nixdorf Institut and the Siemens AG KWU.

8 Early evaluation of software performance based on the UML performance profile

Gordon Ping Gu, Dorina C. Petriu

October 2003 **Proceedings of the 2003 conference of the Centre for Advanced Studies conference on Collaborative research**

Full text available: pdf(498.98 KB) Additional Information: full citation, abstract, references, index terms

The "UML Profile for Schedulability, Performance and Time" recently adopted by OMG defines performance extensions via the Unified Modeling Language (UML) stereotypes, tagged values and constraints. In order to conduct quantitative performance analysis of a UML model with performance annotations, one must first translate it into a performance model, then solve the generated model with an existing performance analysis tool. This paper proposes a method for transforming automatically an annotated U ...

9 Anticipatory scheduling: a disk scheduling framework to overcome deceptive idleness in synchronous I/O

Sitaram Iyer, Peter Druschel

October 2001 **ACM SIGOPS Operating Systems Review , Proceedings of the eighteenth ACM symposium on Operating systems principles**, Volume 35 Issue 5

Full text available: pdf(1.61 MB) Additional Information: full citation, abstract, references, citings, index terms

Disk schedulers in current operating systems are generally work-conserving, i.e., they schedule a request as soon as the previous request has finished. Such schedulers often require multiple outstanding requests from each process to meet system-level goals of performance and quality of service. Unfortunately, many common applications issue disk read requests in a synchronous manner, interspersing successive requests with short periods of computation. The scheduler chooses the next request too ea ...

10 Rule-assisted prefetching in Web-server caching

Bin Lan, Stephane Bressan, Beng Chin Ooi, Kian-Lee Tan

November 2000 **Proceedings of the ninth international conference on Information and knowledge management**

Full text available: pdf(245.90 KB) Additional Information: full citation, references, citings, index terms

Keywords: caching, pattern analysis, prefetching, web server

11 Stateful distributed interposition

John Reumann, Kang G. Shin

February 2004 **ACM Transactions on Computer Systems (TOCS)**, Volume 22 Issue 1

Full text available: pdf(833.84 KB) Additional Information: full citation, abstract, references, index terms

Interposition-based system enhancements for multitiered servers are difficult to build because important system context is typically lost at application and machine boundaries. For example, resource quotas and user identities do not propagate easily between cooperating services that execute on different hosts or that communicate with each other via intermediary services. Application-transparent system enhancement is difficult to achieve when such context information is obscured by complex servic ...

Keywords: Distributed computing, component services, distributed context, multitiered services, operating systems, server consolidation

12 A performance engineering tool and method for distributing applications

M. Litoiu, Hamid Khafagy, Bin Qin, Anita Rass Wan, J. Rolia

November 1997 **Proceedings of the 1997 conference of the Centre for Advanced Studies on Collaborative research**

Full text available: pdf(188.01 KB) Additional Information: full citation, abstract, references, index terms

Recent advances in distributed object and Internet technologies have made it attractive for organizations to distribute application functions. Typical projects include: the re-hosting of legacy applications that move application functionality to or from mainframe/server environments, the creation of new target independent interfaces for legacy systems, and the development of new applications altogether. Design concerns for such systems include security, reliability, and performance. The performa ...

Keywords: distributed computing, performance analysis, performance modeling, software design

13 Tools and approaches for developing data-intensive Web applications: a survey
Piero Fraternali
September 1999 **ACM Computing Surveys (CSUR)**, Volume 31 Issue 3

Full text available: pdf(524.80 KB) Additional Information: full citation, abstract, references, citings, index terms

The exponential growth and capillar diffusion of the Web are nurturing a novel generation of applications, characterized by a direct business-to-customer relationship. The development of such applications is a hybrid between traditional IS development and Hypermedia authoring, and challenges the existing tools and approaches for software production. This paper investigates the current situation of Web development tools, both in the commercial and research fields, by identifying and characte ...

Keywords: HTML, Intranet, WWW, application, development

14 Model-driven development of Web applications: the AutoWeb system
Piero Fraternali, Paolo Paolini
October 2000 **ACM Transactions on Information Systems (TOIS)**, Volume 18 Issue 4

Full text available: pdf(6.94 MB) Additional Information: full citation, abstract, references, citings, index terms

This paper describes a methodology for the development of WWW applications and a tool environment specifically tailored for the methodology. The methodology and the development environment are based upon models and techniques already used in the hypermedia, information systems, and software engineering fields, adapted and blended in an original mix. The foundation of the proposal is the conceptual design of WWW applications, using HDM-lite, a notation for the specification of structure, nav ...

Keywords: HTML, WWW, application, development, intranet, modeling

15 A client-aware dispatching algorithm for web clusters providing multiple services
Emiliano Casalicchio, Michele Colajanni
April 2001 **Proceedings of the tenth international conference on World Wide Web**

Full text available: pdf(311.46 KB) Additional Information: full citation, references, citings, index terms

Keywords: clusters, dispatching algorithms, load balancing

16 Industrial sessions: middle-tier caching: Middle-tier database caching for e-business
Qiong Luo, Sailesh Krishnamurthy, C. Mohan, Hamid Pirahesh, Honguk Woo, Bruce G. Lindsay,

Jeffrey F. Naughton
June 2002 **Proceedings of the 2002 ACM SIGMOD international conference on Management of data**

Full text available: pdf(1.20 MB) Additional Information: full citation, abstract, references, citings, index terms

While scaling up to the enormous and growing Internet population with unpredictable usage patterns, E-commerce applications face severe challenges in cost and manageability, especially for database servers that are deployed as those applications' backends in a multi-tier configuration. Middle-tier database caching is one solution to this problem. In this paper, we present a simple extension to the existing federated features in DB2 UDB, which enables a regular DB2 instance to become a DBCache wi ...

17 Security for Web Applications and P2P: Abstracting application-level web security
David Scott, Richard Sharp
May 2002 **Proceedings of the eleventh international conference on World Wide Web**

Full text available: pdf(287.51 KB) Additional Information: full citation, abstract, references, citings, index terms

Application-level web security refers to vulnerabilities inherent in the code of a web-application itself (irrespective of the technologies in which it is implemented or the security of the web-server/back-end database on which it is built). In the last few months application-level vulnerabilities have been exploited with serious consequences: hackers have tricked e-commerce sites into shipping goods for no charge, user-names and passwords have been harvested and condential information (such as ...

Keywords: application-Level web security, component-based design, security policy description language

18 Performance evaluation of software architecture: XSLT transformation from UML models to LQN performance models
Gordon P. Gu, Dorina C. Petriu
July 2002 **Proceedings of the third international workshop on Software and performance**

Full text available: pdf(197.54 KB) Additional Information: full citation, abstract, references

A graph grammar-based transformation of a UML design model into a Layered Queueing Network (LQN) performance model was previously proposed by the authors of this paper. The actual transformation was implemented in two ways: first by using an existing graph-rewriting tool, and secondly through an ad-hoc graph transformation implemented in Java.This paper extends the previous work of the authors by proposing a third approach to implement the UML to LQN transformation by using XSLT. Recommended by ...

Keywords: LQN, UML, XMI, XSLT, software performance engineering

19 Migration: Optimizing the migration of virtual computers
Constantine P. Sapuntzakis, Ramesh Chandra, Ben Pfaff, Jim Chow, Monica S. Lam, Mendel Rosenblum
December 2002 **ACM SIGOPS Operating Systems Review**, Volume 36 Issue SI

Full text available: pdf(1.68 MB) Additional Information: full citation, abstract, references, citings

This paper shows how to quickly move the state of a running computer across a network, including the state in its disks, memory, CPU registers, and I/O devices. We call this state a *capsule*. Capsule state is hardware state, so it includes the entire operating system as well as applications and running processes.We have chosen to move *x*86 computer states

because *x*86 computers are common, cheap, run the software we use, and have tools for migration. Unfortunately, *x*86 c ...

20 Extending performance approaches to new application domains: Performance aware software development (PASD) using resource demand budgets

Khalid H. Siddiqui, C. M. Woodside

July 2002 **Proceedings of the third international workshop on Software and performance**

Full text available: pdf(137.49 KB) Additional Information: full citation, abstract, references

Performance Aware Software Development (PASD) as described here combines a software specification, a model, and resource demand budgets. The budgets are planning figures created by the designers and managers, from the requirements and their experience. The key elements of this approach are the *planning of budgets* for the resource demands of each of the parts and operations of the system, and a *validation check* (using the model) for the required performance. The paper starts from a ...

Keywords: performance budgets, performance prediction, performance requirements, scenario specification, software performance engineering